Monthly and Seasonal Mean Analyses

March, April, May
1989

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Monthly and Seasonal Mean Analyses

March, April, May 1989

Mean fields obtained from the archive of operational analyses

Met O 20 (Dynamical Climatology Branch)
Meteorological Office
London Road
Bracknell
Berkshire RG12 2SZ

June 1989

Note: Permission to quote from this document should be obtained from the Assistant Director of the above Meteorological Branch.

Monthly and Seasonal Mean Analyses

Introduction

The archive of operational analyses contains a continuous record of global analyses every 12 hours (00 and 12 GMT) from May 1983 onwards. They are copies of the update analyses produced in the operational numerical weather prediction system using the 15-level model (Bell and Dickinson 1987). In this booklet there are presented monthly and seasonal mean fields computed from the archived analyses for a single season. Since a season spans three calendar months, there are four sections. Sections 1, 2 and 3 contain charts of the monthly mean fields for each month, and section 4 contains charts of the seasonal mean fields. The seasonal means are the means of the fields in the first three sections, weighted according to the number of days in each month.

Each section contains a set of charts for the northern and southern hemispheres and a set for the tropics. In each hemisphere, polar stereographic projects have been used to prepare a chart of pressure at mean sea level and composite charts showing both height (contours) and wind (vectors and isotachs) at 850, 500, 250 and 100 mb. In the tropics the charts are presented on a latitude–longitude projection encircling the globe in three sections covering the longitudes 0°–120°E, 120°E–120°W and 120°W–0°. This projection has been used to produce a series of charts of wind vectors and isotachs at 850 and 250 mb. On all charts, contours are depicted as solid lines, wind vectors as arrows and isotachs as dashed lines.

When archiving was first undertaken, for May 1983, global fields were stored according to their coefficients in a series of spherical harmonics up to a triangular truncation of T40 (Swinbank 1984). Since this is roughly equivalent to a latitude–longitude grid with a resolution of 4.5° by 4.5°, the conversion from the model's standard grid of 1.5° by 1.875° to the spectral representation results in some smoothing of the fields. Subsequently, a new method for storing the archived fields was developed as a result of discussions within the Working Group on the Development of the Operational Suite (WGDOS). This method uses a compressed digital coding of the original model field, on its standard latitude–longitude grid, but with fewer significant figures (Lowther 1986). It was implemented on 18 December 1985 in a limited version. After the inclusion of more fields, and following monitoring to ensure that the two representations (i.e. truncated spectral and compressed grid-point) of the archived analyses were consistent, the spectral archive was terminated on 31 October 1986.

The contents of the archives may be examined by consulting the computer data set 'M20.NARCHIND', where the tape number, file number and data set name for each archived day may be found. The fields in the spectral archive are stored in the format required by the post-processing (p-p) package. Details of the format and of the subroutines to be used for accessing the data are described in the manual for the p-p package. Some examples are shown in Swinbank (1984). The fields in the daily grid-point archive are stored as printfiles (Lowther 1986). A list of the fields in each of the two versions of the daily archive is given in the relevant documentation.

The monthly and seasonal mean fields have been computed from the spectral archive up to the end of October 1986. Thereafter, they have been computed from the grid-point archive. The mean fields are held as computer data sets in Met O 20, in spectral or grid-point format, as appropriate, and are available for general use. Means for each month and season over three years of the spectral archive are also available. The mean fields that are held are as follows:

Field		Pressure level (mb)
Westerly wind component	(m/s)	1000*, 850, 700, 500, 400, 300, 250, 200, 150, 100, 70, 50
Southerly wind component	(m/s)	
Height	(dam)	
Temperature	(K)	
Relative humidity	(%)	1000*, 850, 700, 500, 400, 300
Pressure at mean sea level	(mb)	

* Fields at 1000 mb are held in the spectral archive. In the grid-point archive this level has been omitted and fields at 950 mb are held instead.

References

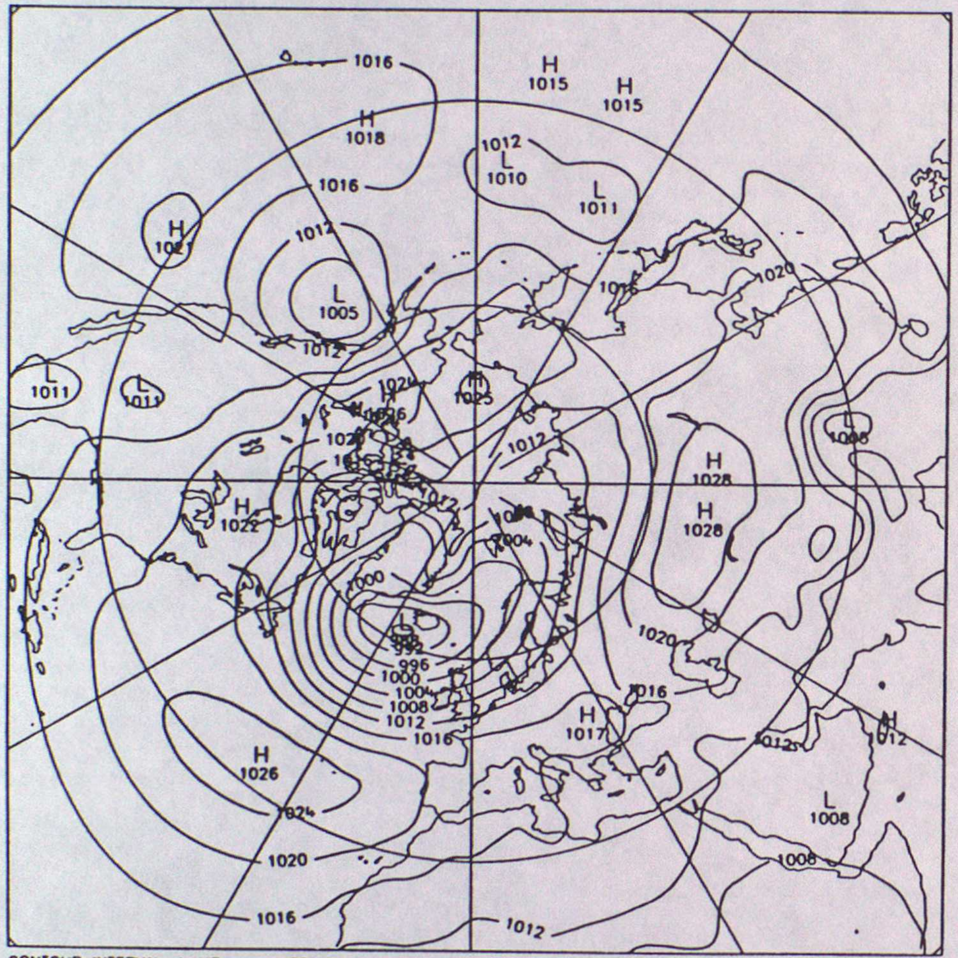
Bell, R.S. and Dickinson, A. 1987 The Meteorological Office operational numerical weather prediction system, Meteorological Office Scientific Paper No. 41, Met.O.979, HMSO.

Lowther, D. 1986 WGDOS Printfile Archive, Operational NWP Scheme, Documentation Paper No. 9.1, Met O 2b, Meteorological Office, Bracknell.

Swinbank, R. 1984 A system to archive operational analyses for research purposes. Met O 20 Technical Note No. II/218. Meteorological Office, Bracknell.

MARCH
1989

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
PMSL
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
SEA LEVEL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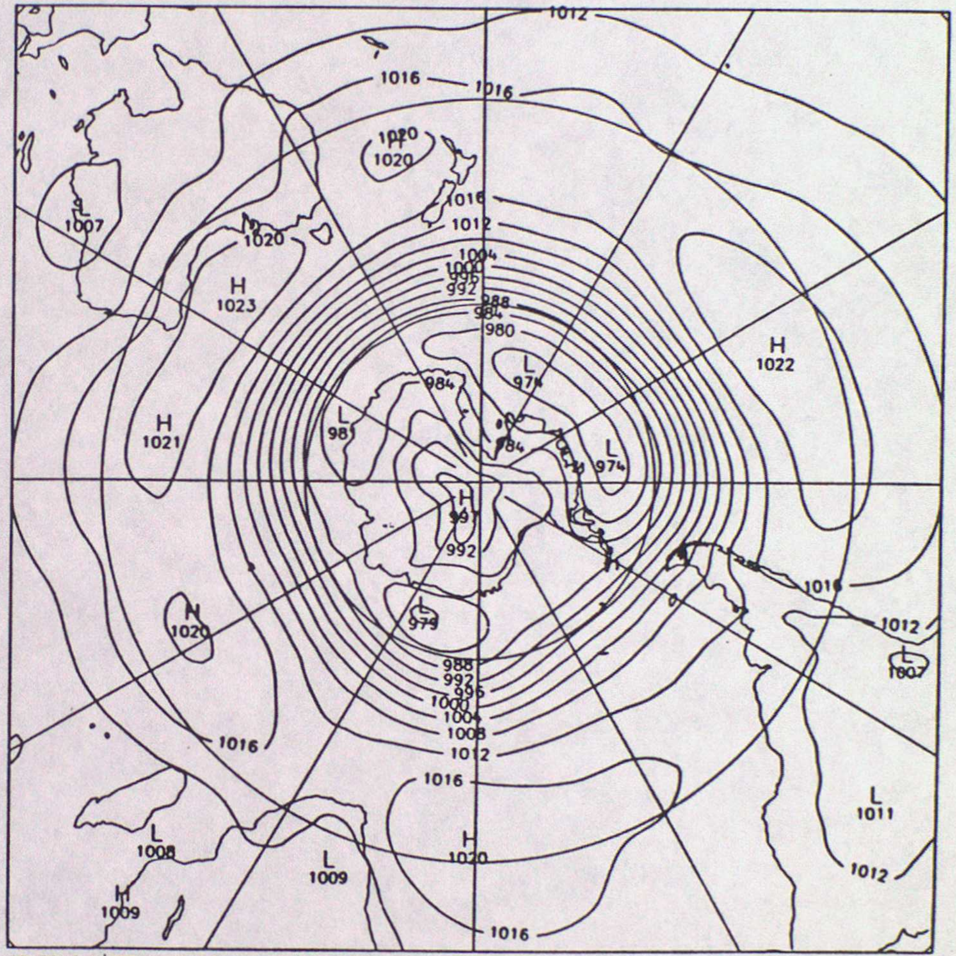
996

CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
PMSL
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
SEA LEVEL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1016

CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
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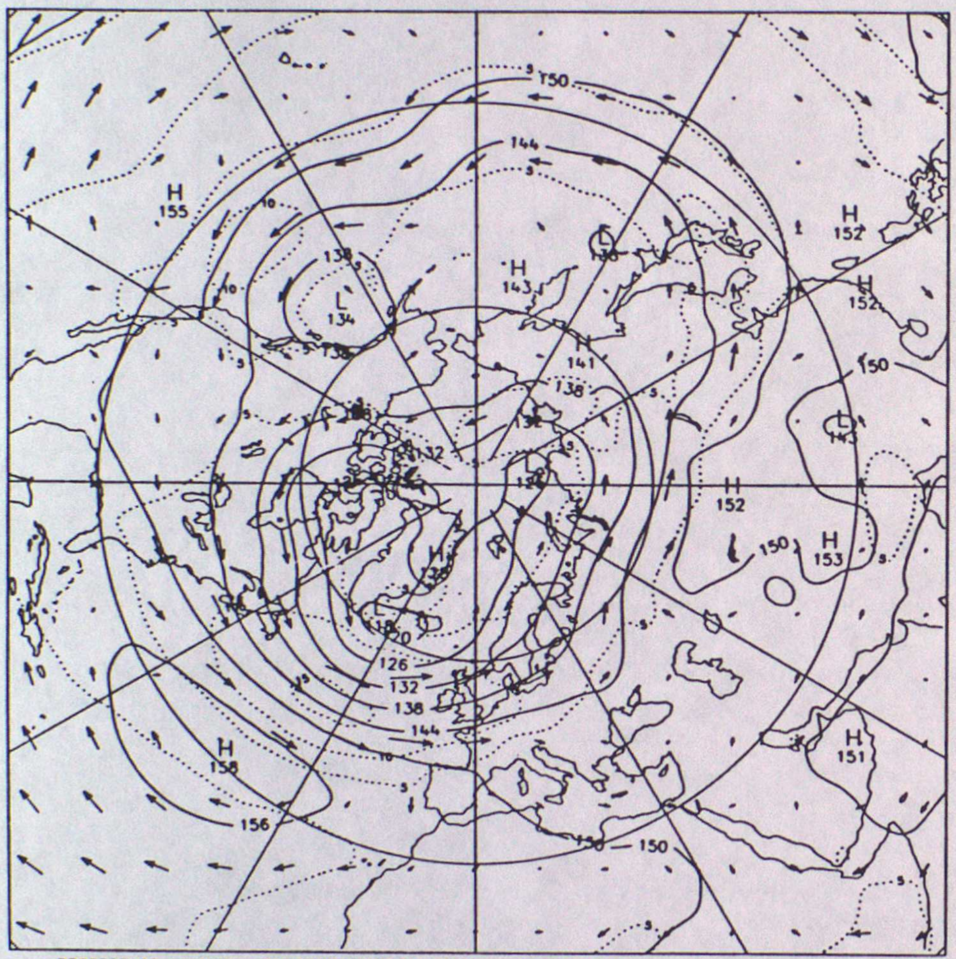
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→ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
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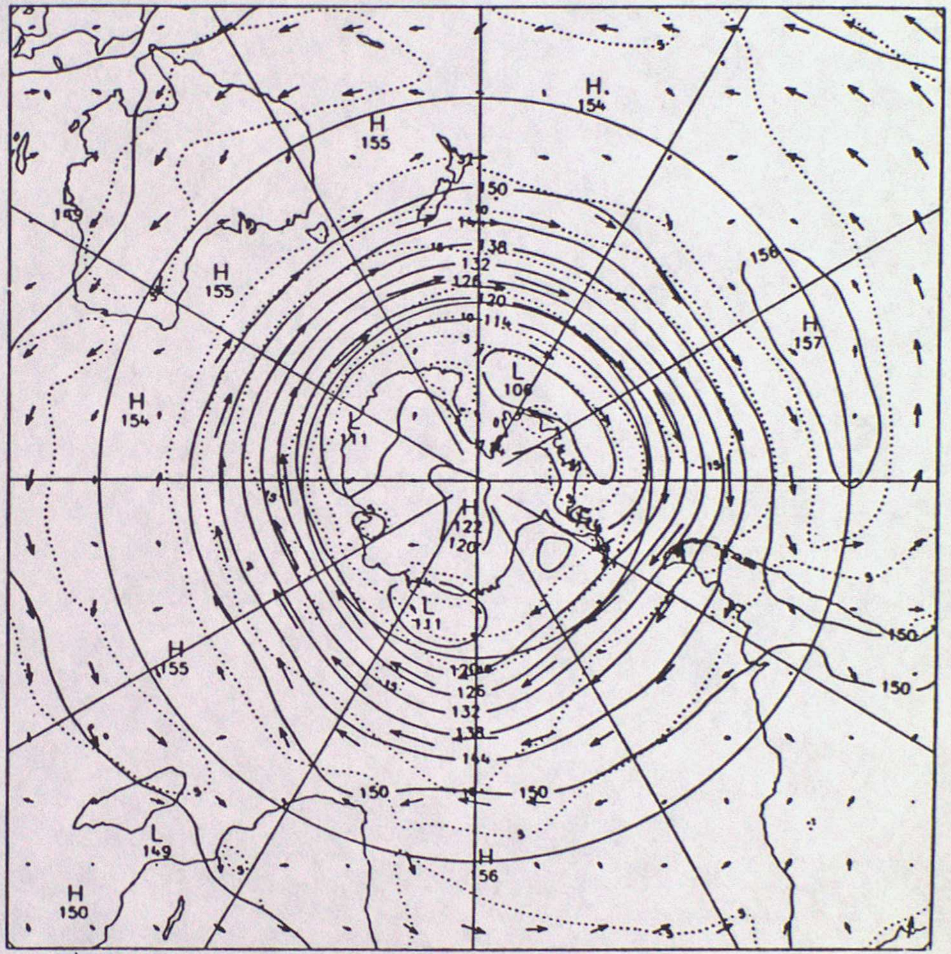
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→ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
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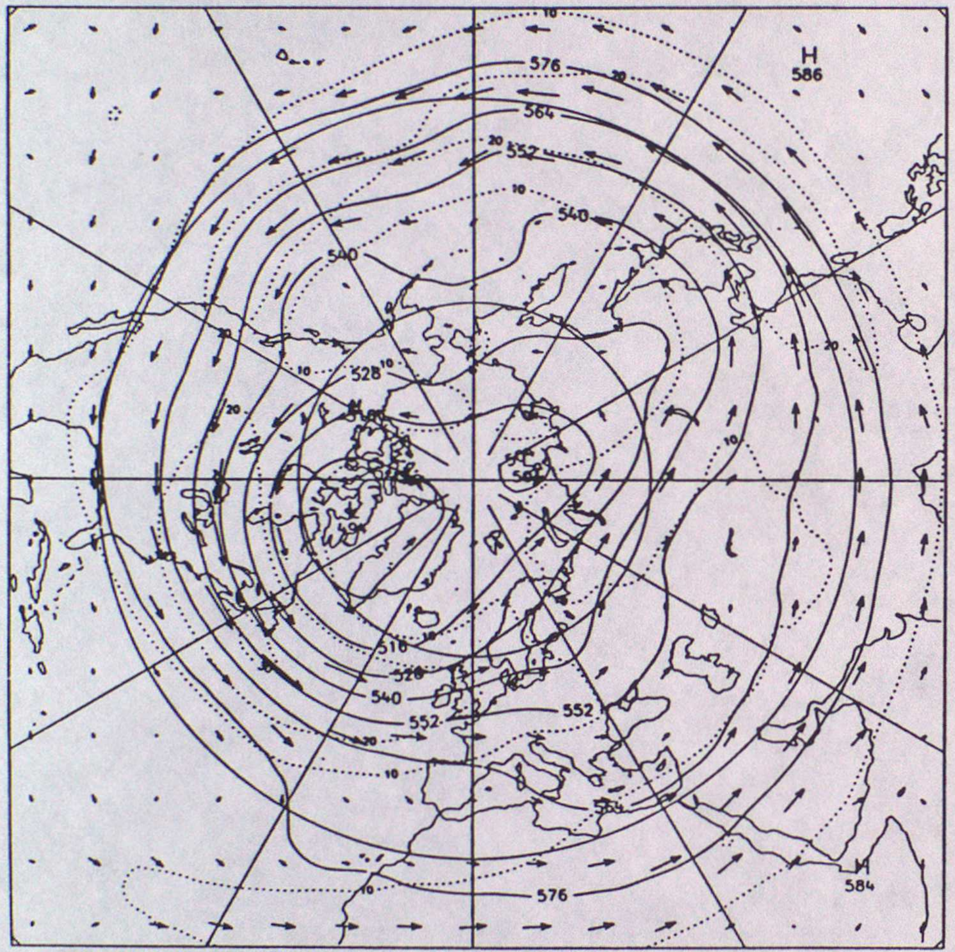
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OPERATIONAL ARCHIVE MEANS.   MARCH   1989
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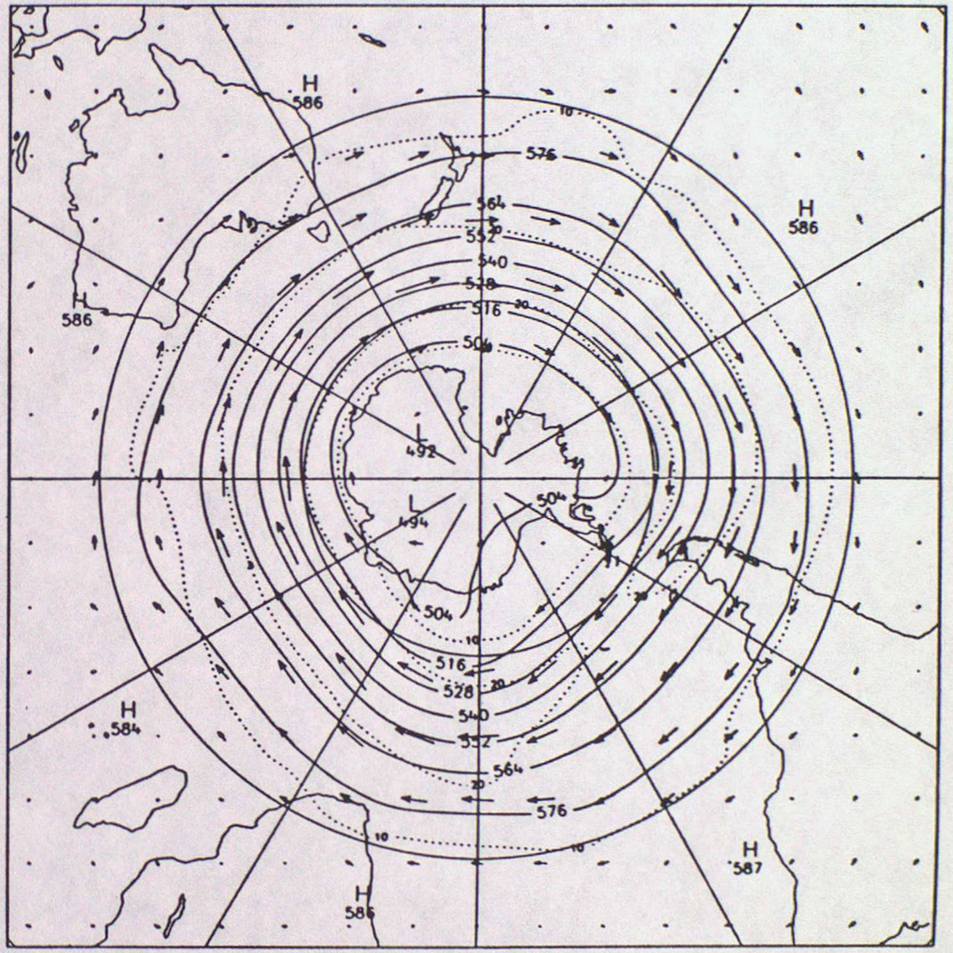
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→ REPRESENTS 20 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MARCH 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
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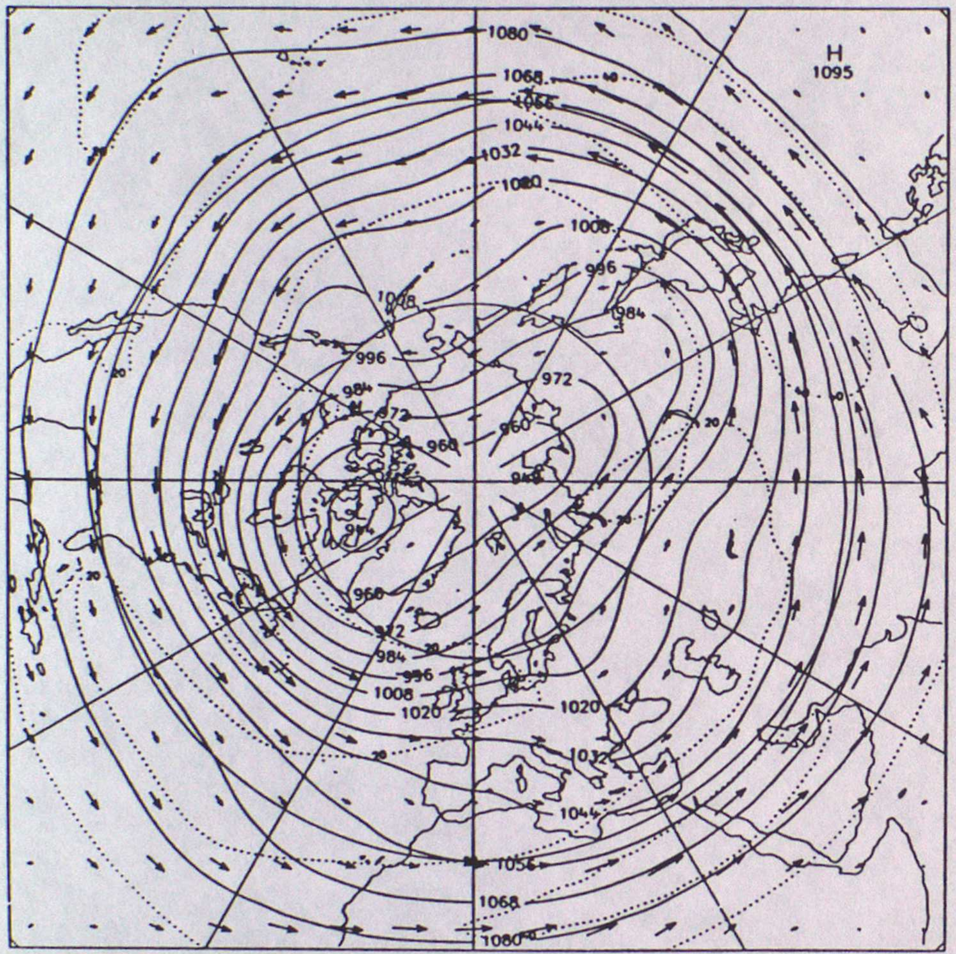
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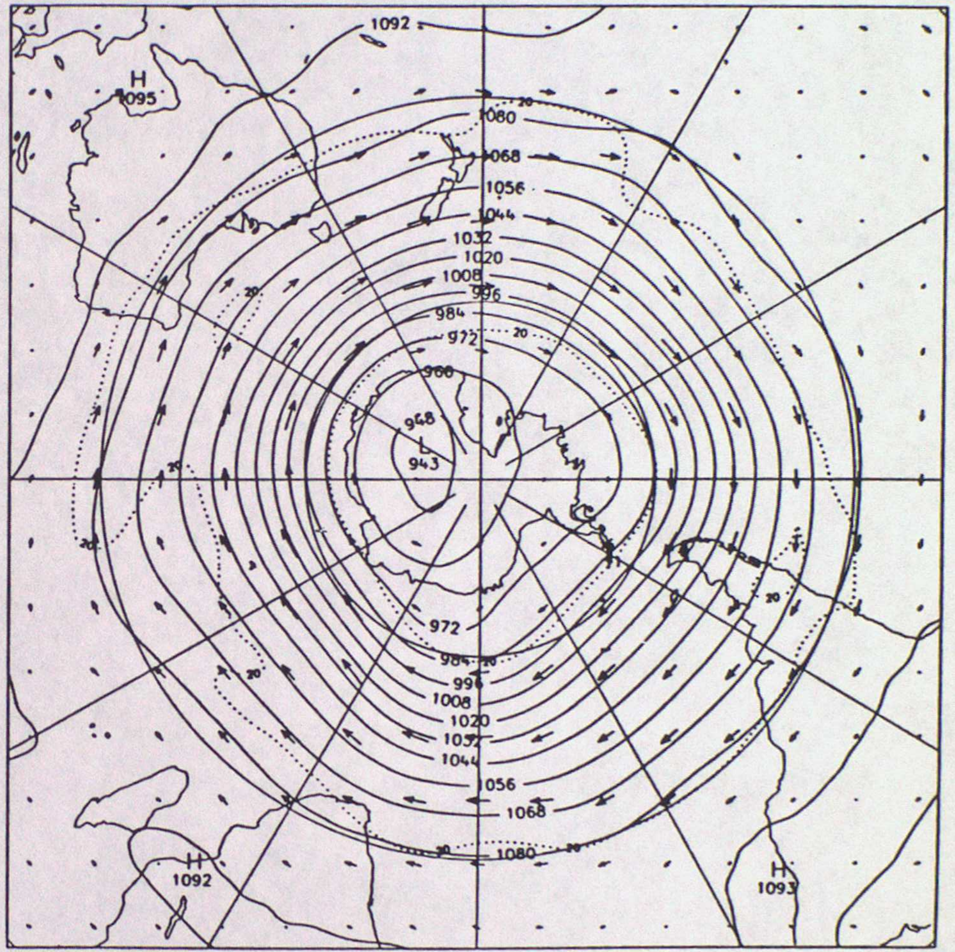
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MARCH 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
LEVEL: 250 MB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→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MARCH 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
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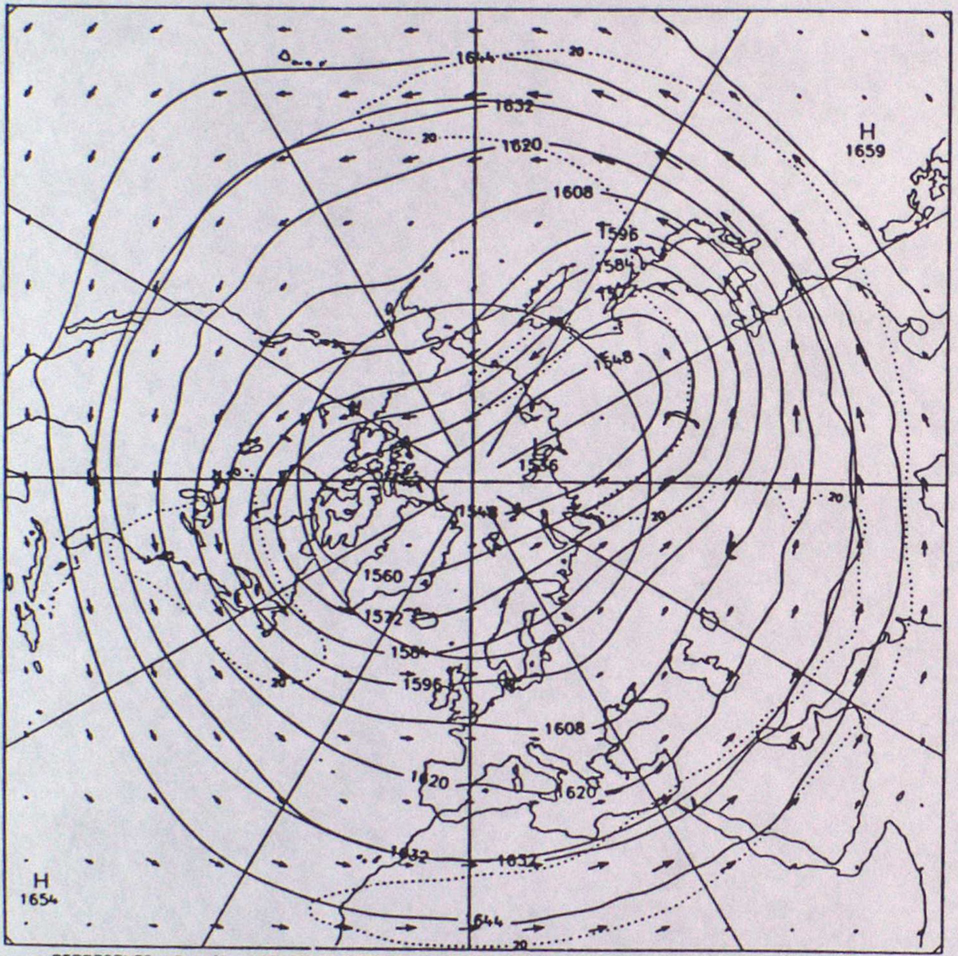
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→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MARCH 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
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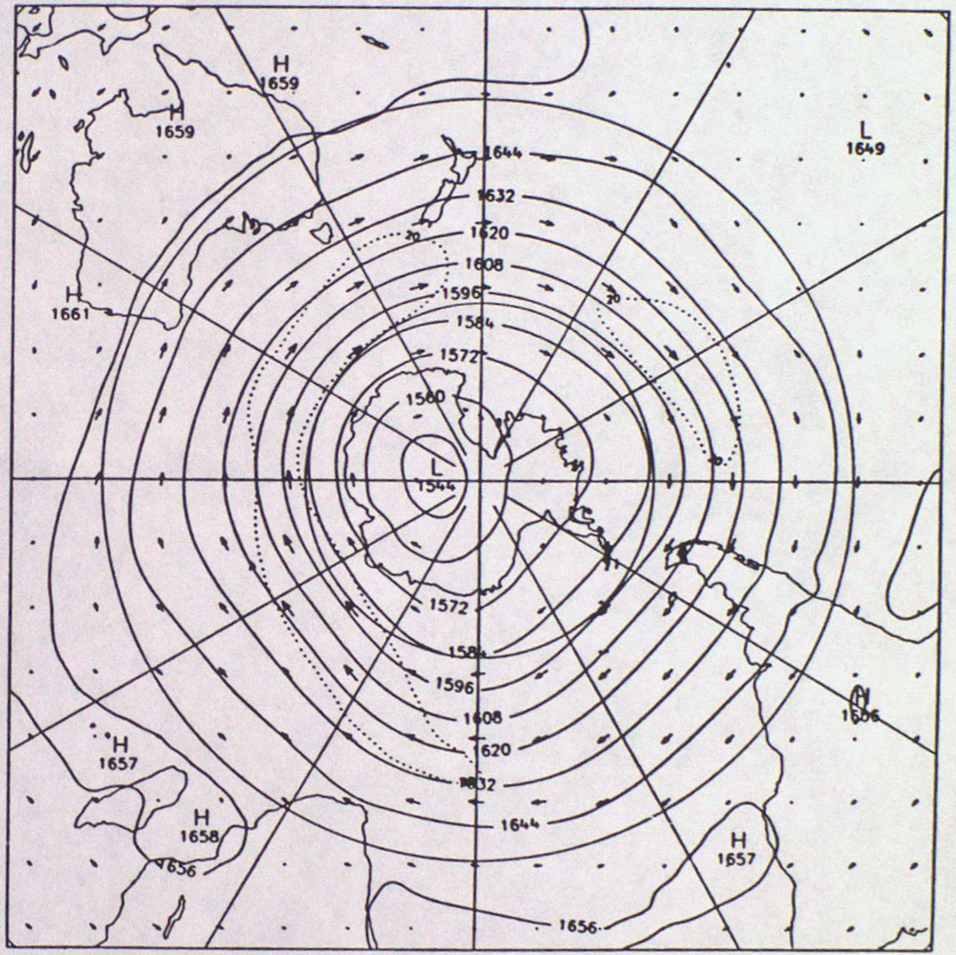
LEVEL: 100 MB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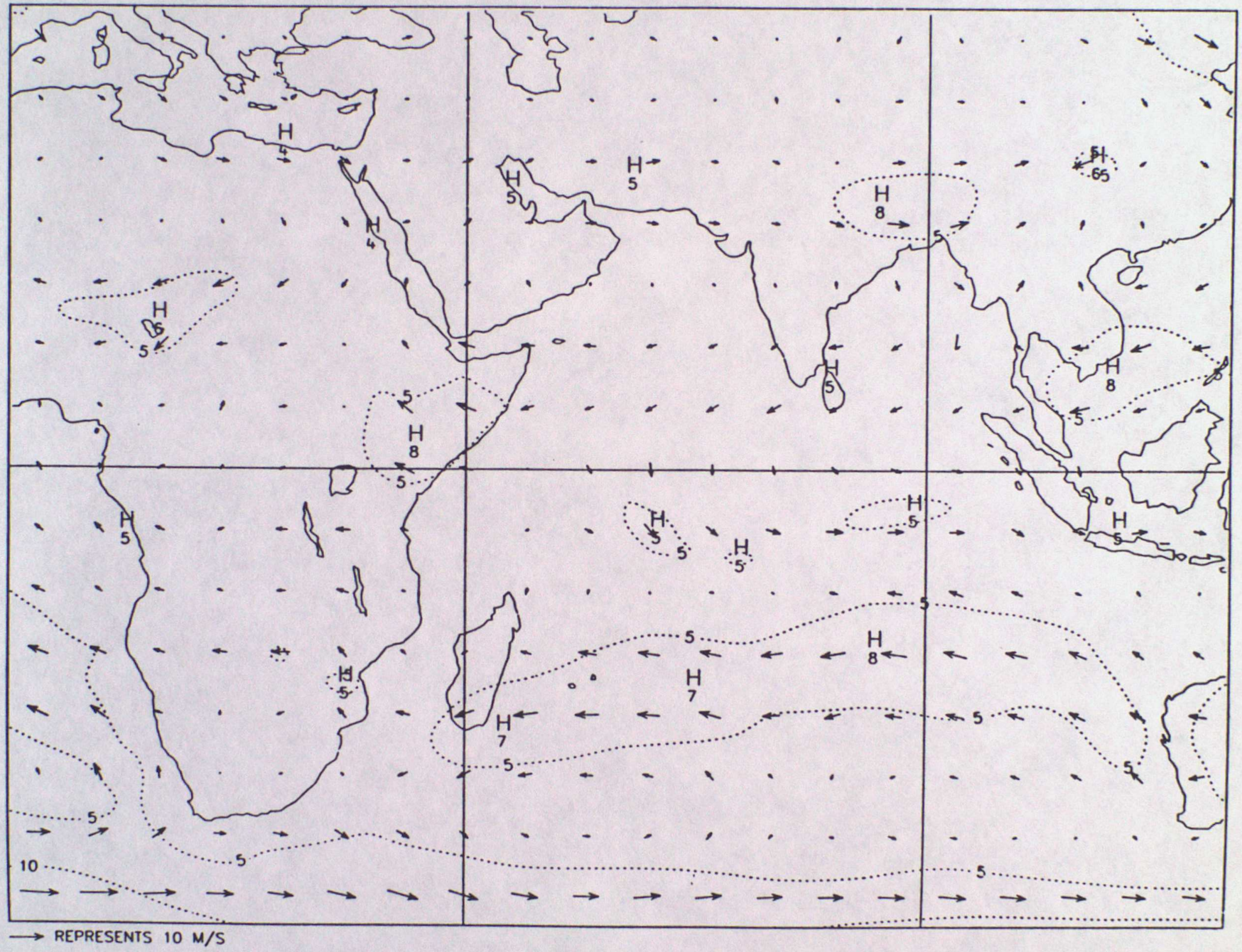
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MARCH 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
850 MBS. BETWEEN LONGS. 0 E - 120 E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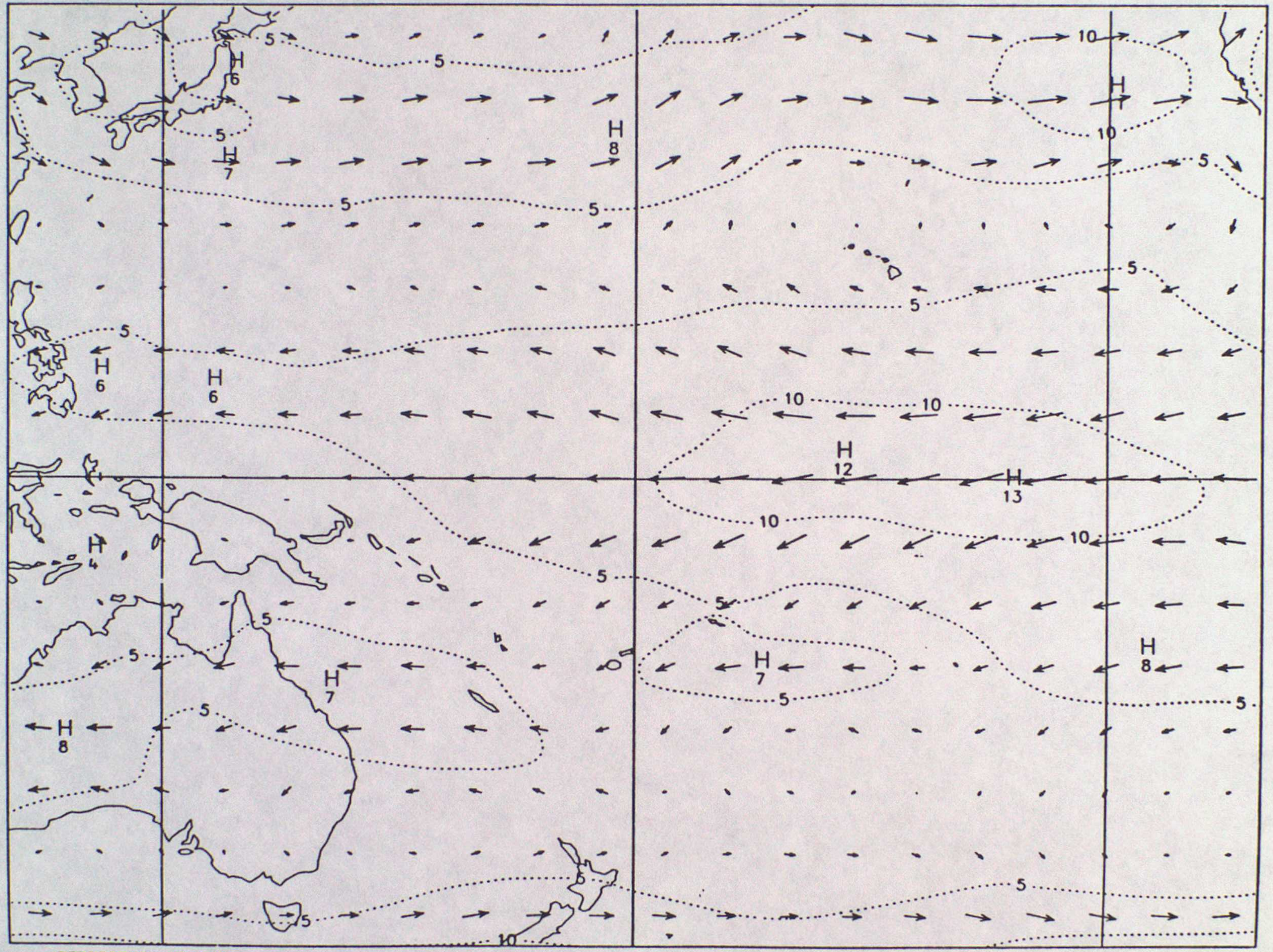
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
850 MBS.   BETWEEN LONGS. 120 E - 120 W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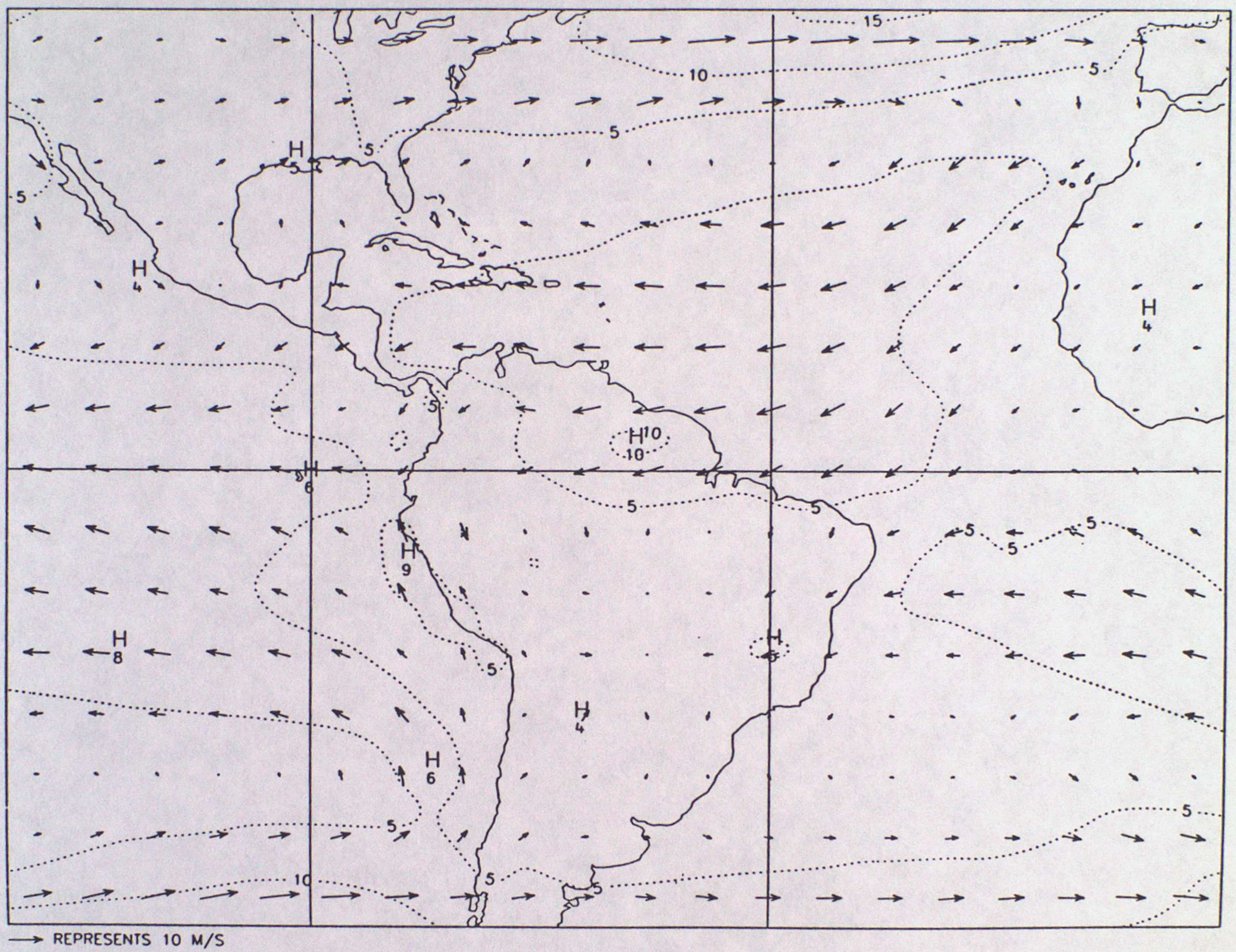
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. MARCH 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
850 MBS. BETWEEN LONGS. 120 W - 0 W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→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. MARCH 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
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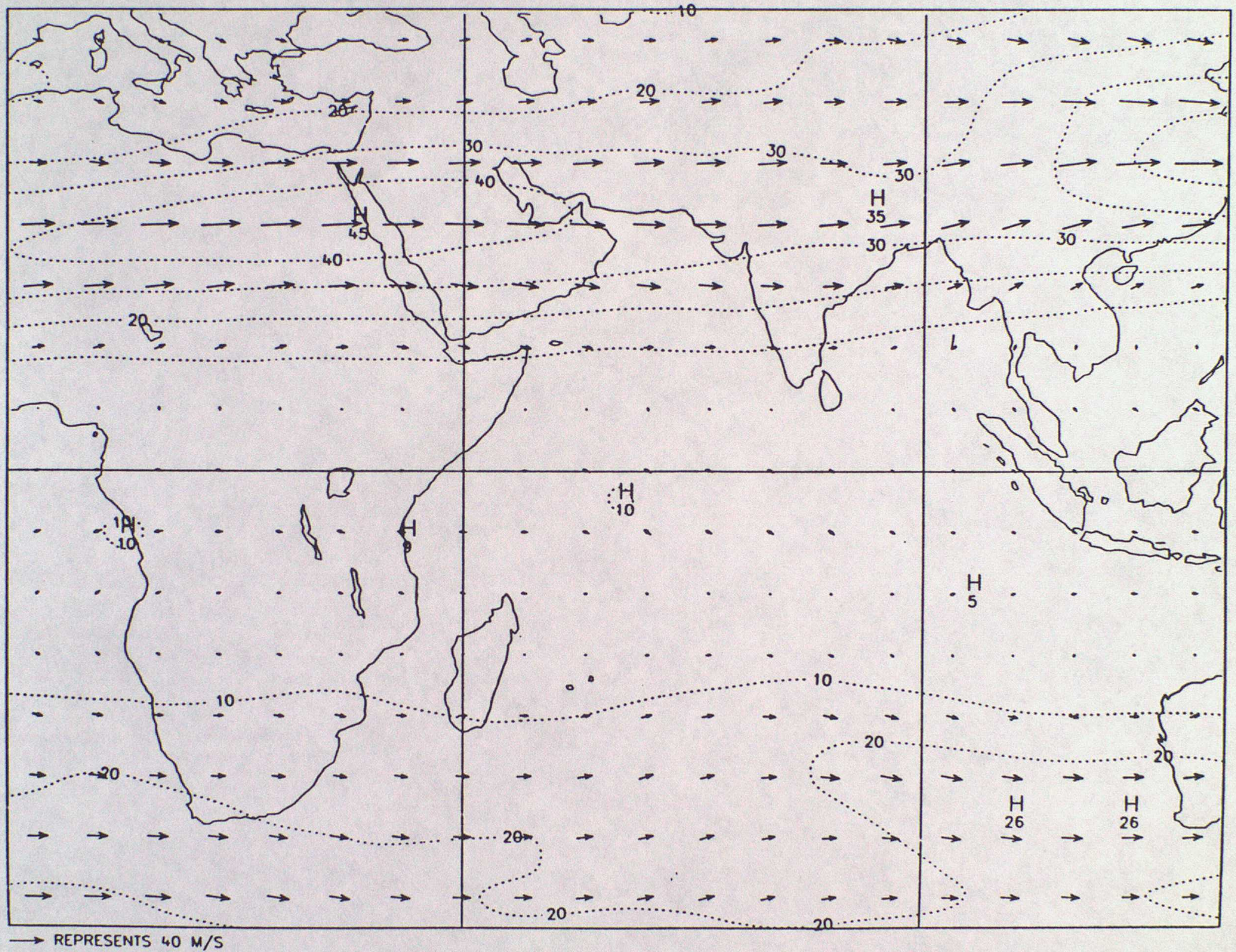
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→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. MARCH 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
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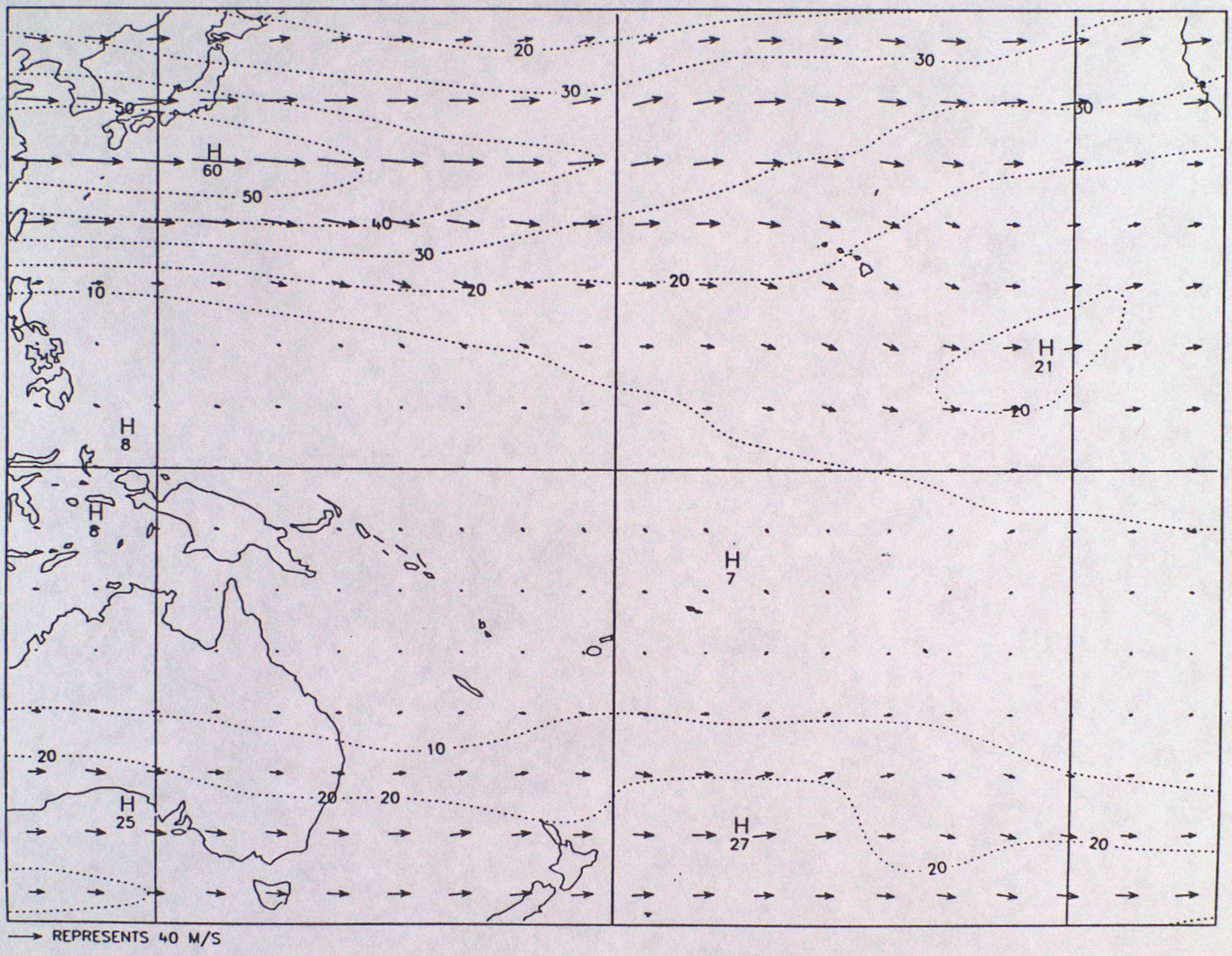
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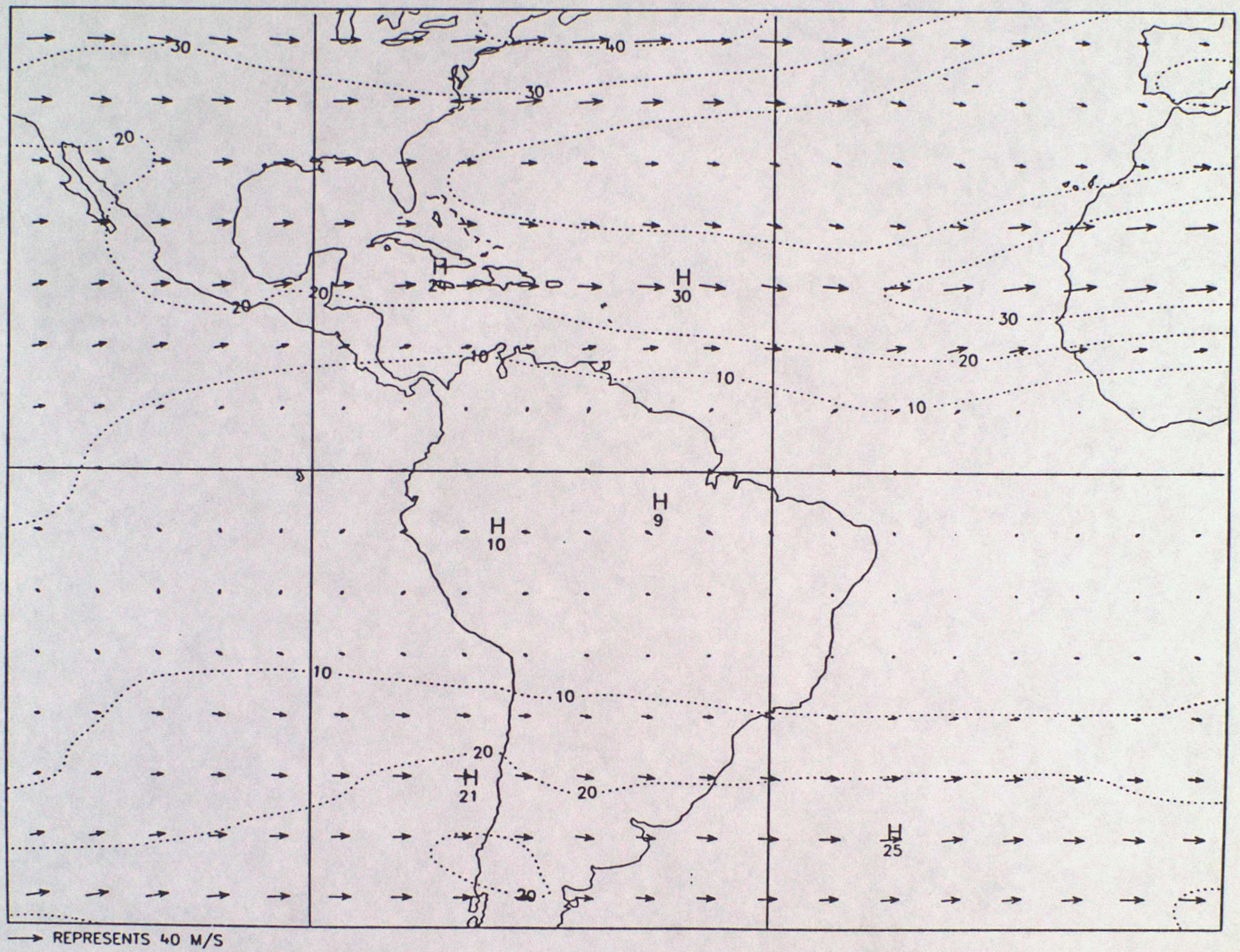
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   MARCH   1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/3/1989 DAY 90
250 MBS.   BETWEEN LONGS. 120 W - 0 W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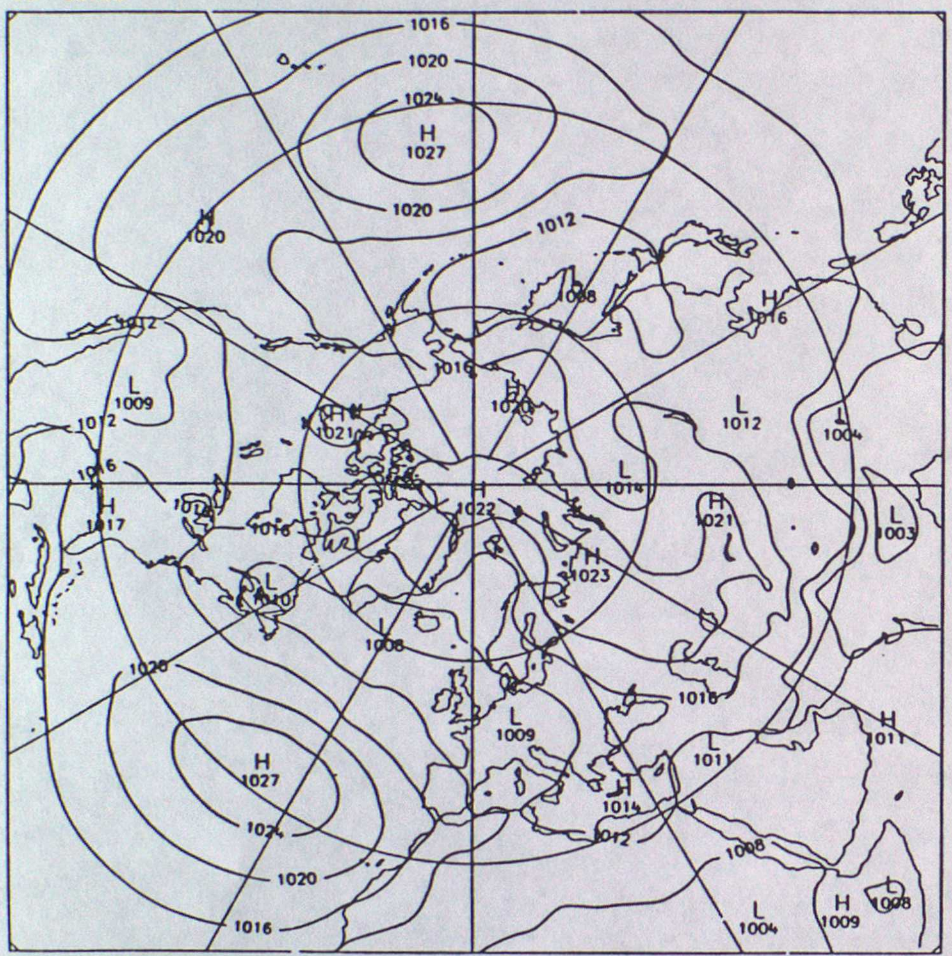
→ REPRESENTS 40 M/S

APRIL
1989

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
PMSL
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
SEA LEVEL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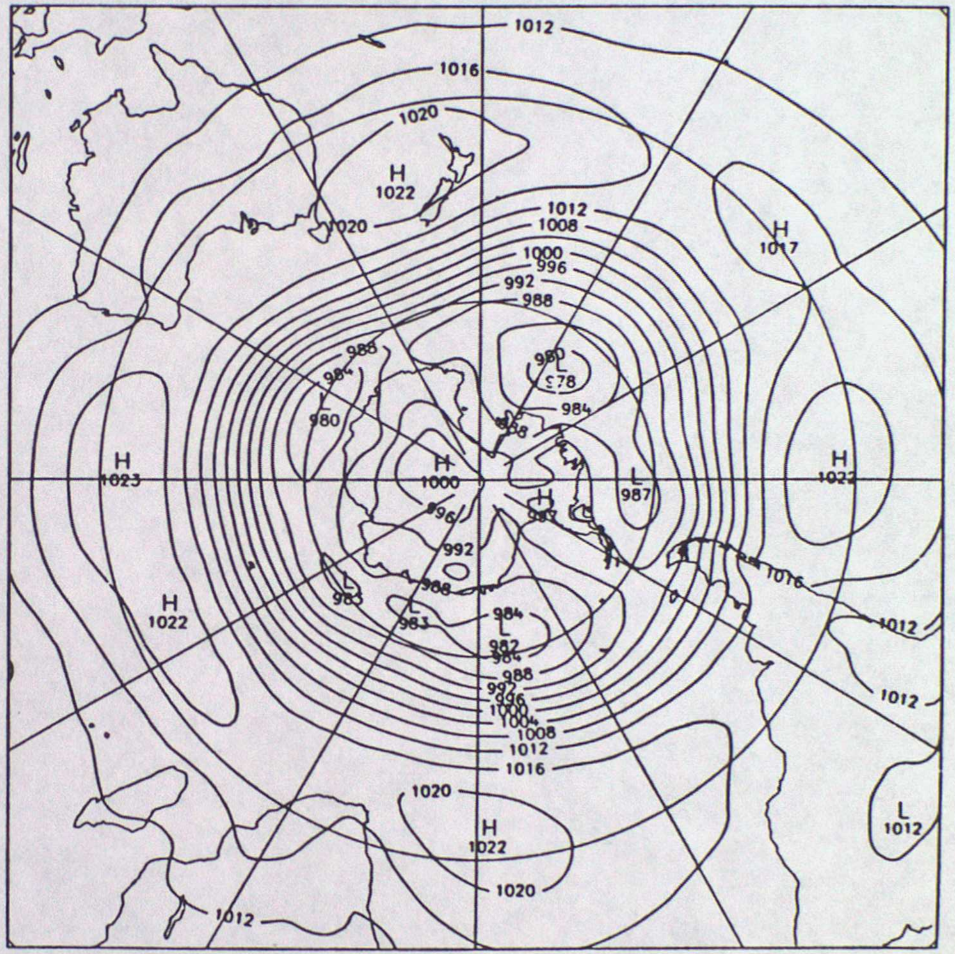
CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
PMSL
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
SEA LEVEL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CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
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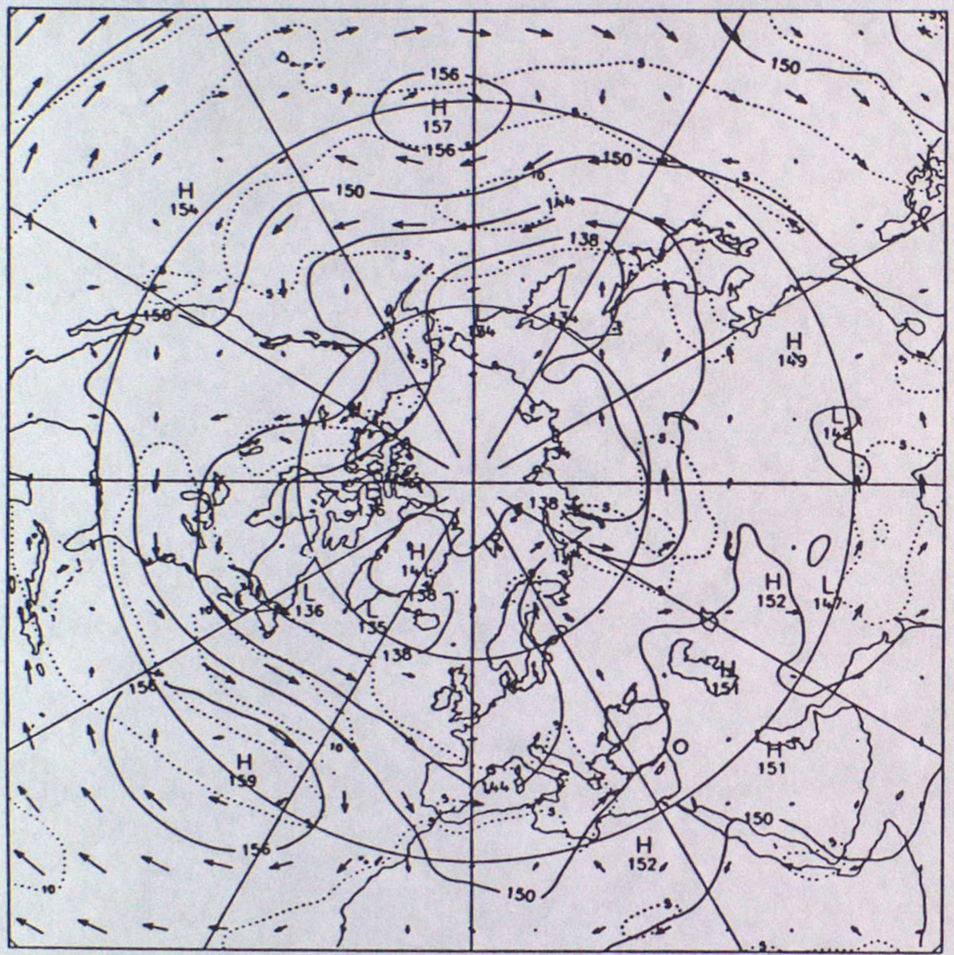

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144

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
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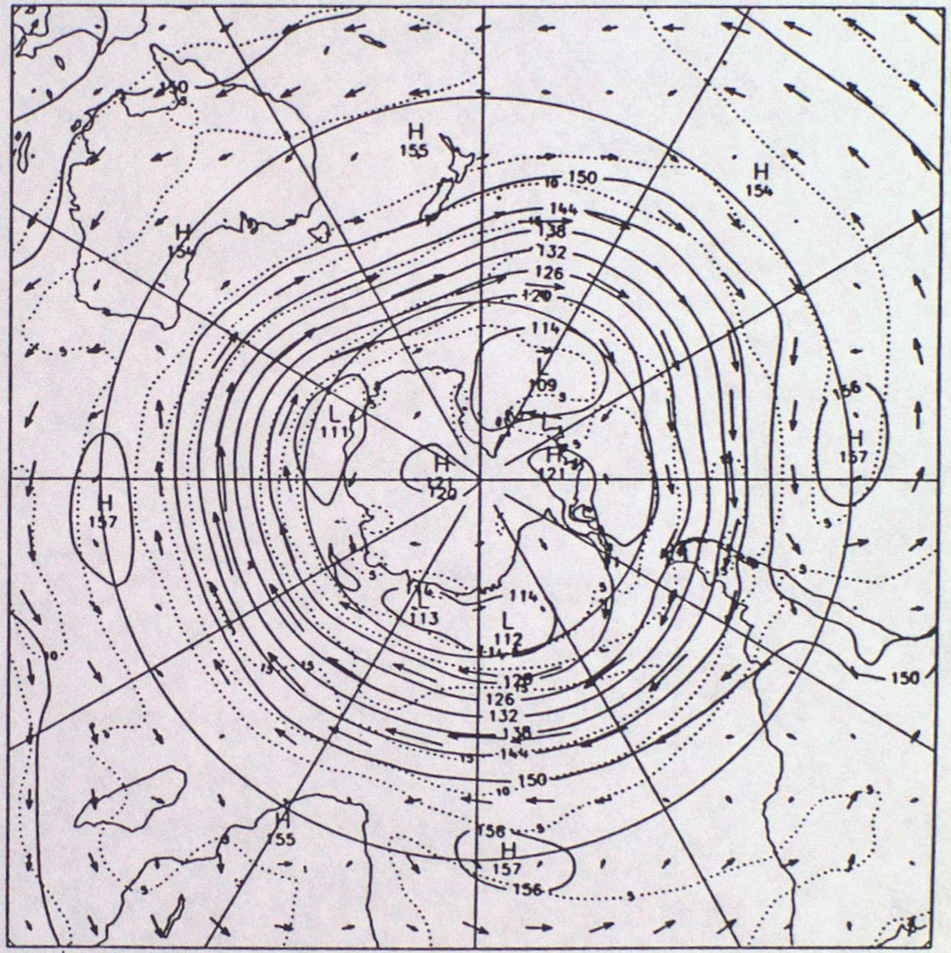

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→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
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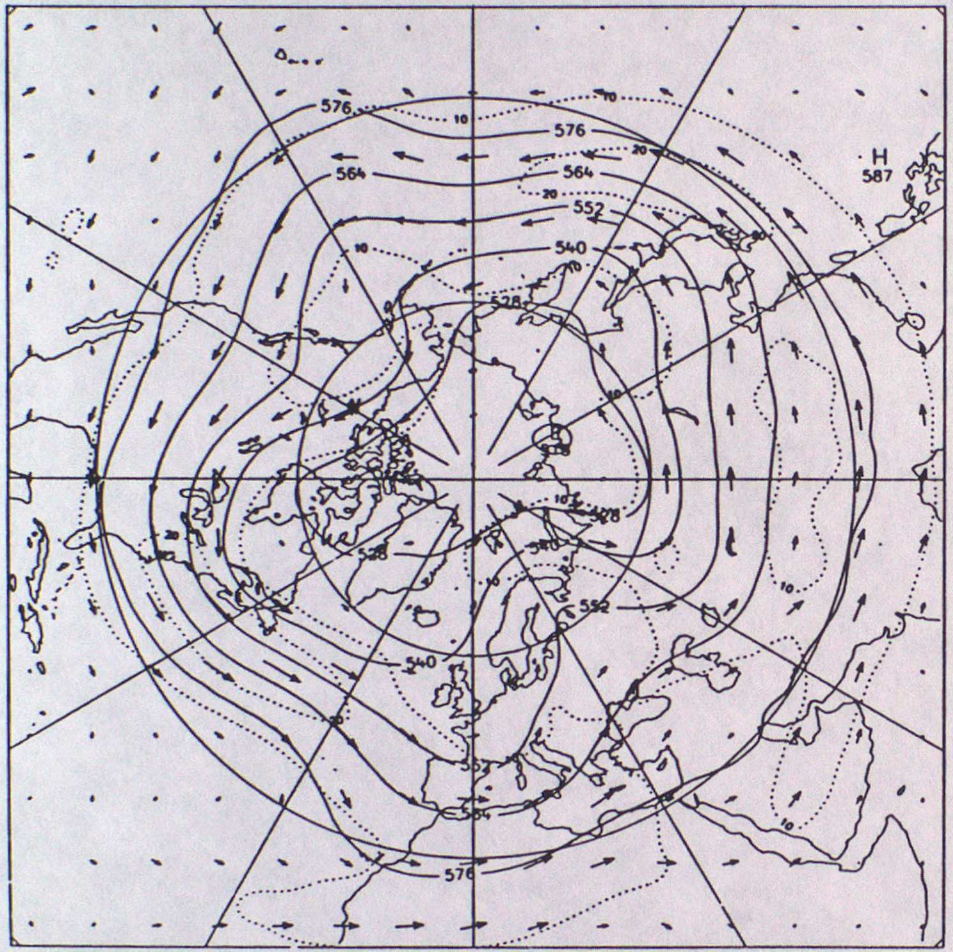
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→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
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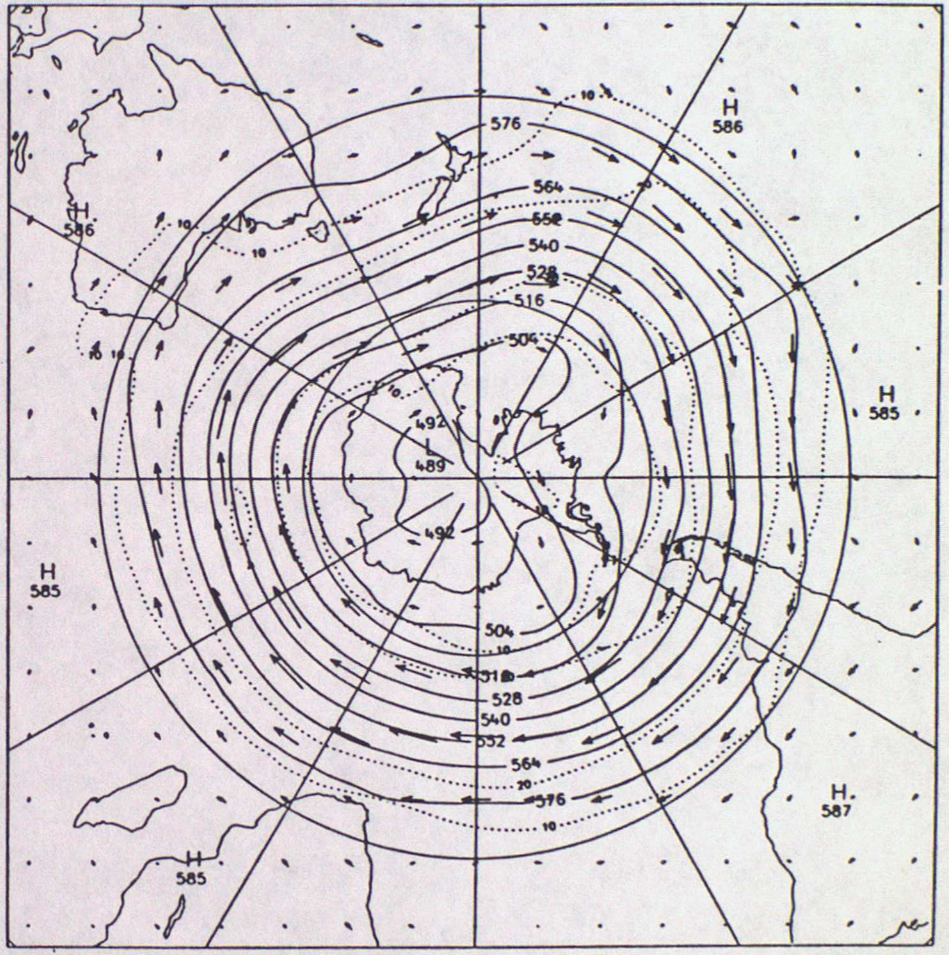
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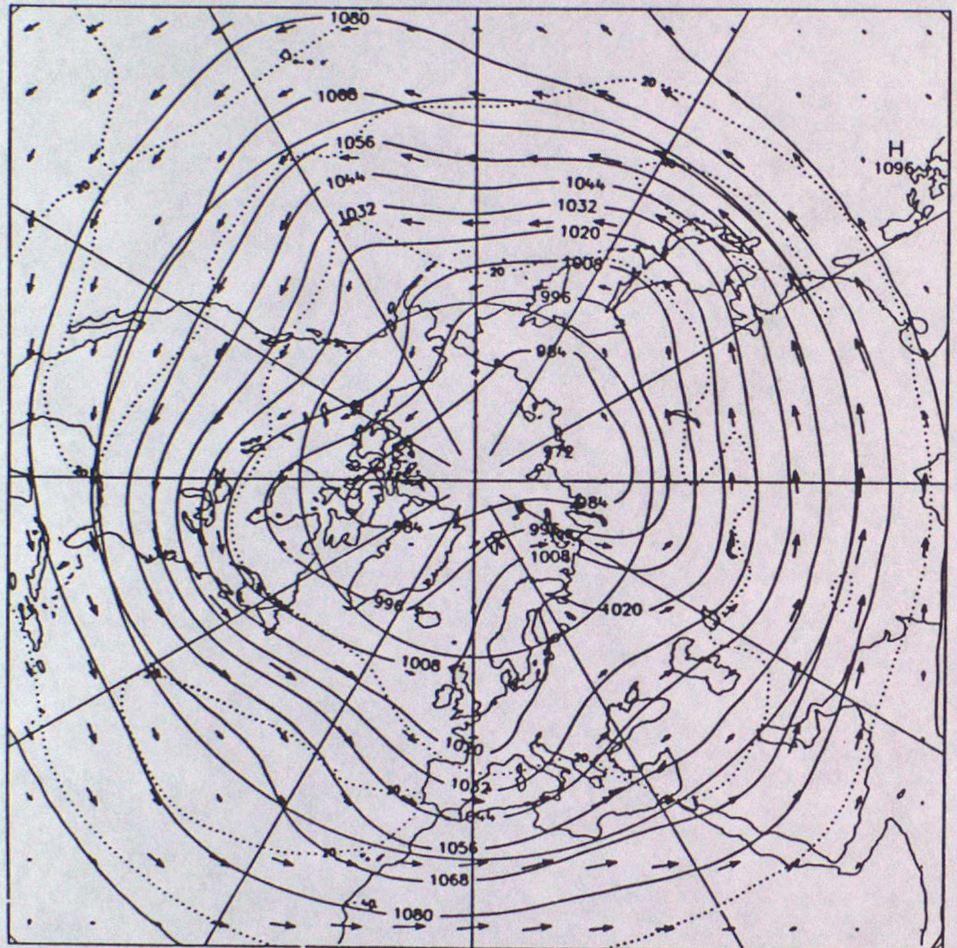
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
LEVEL: 250 MB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→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
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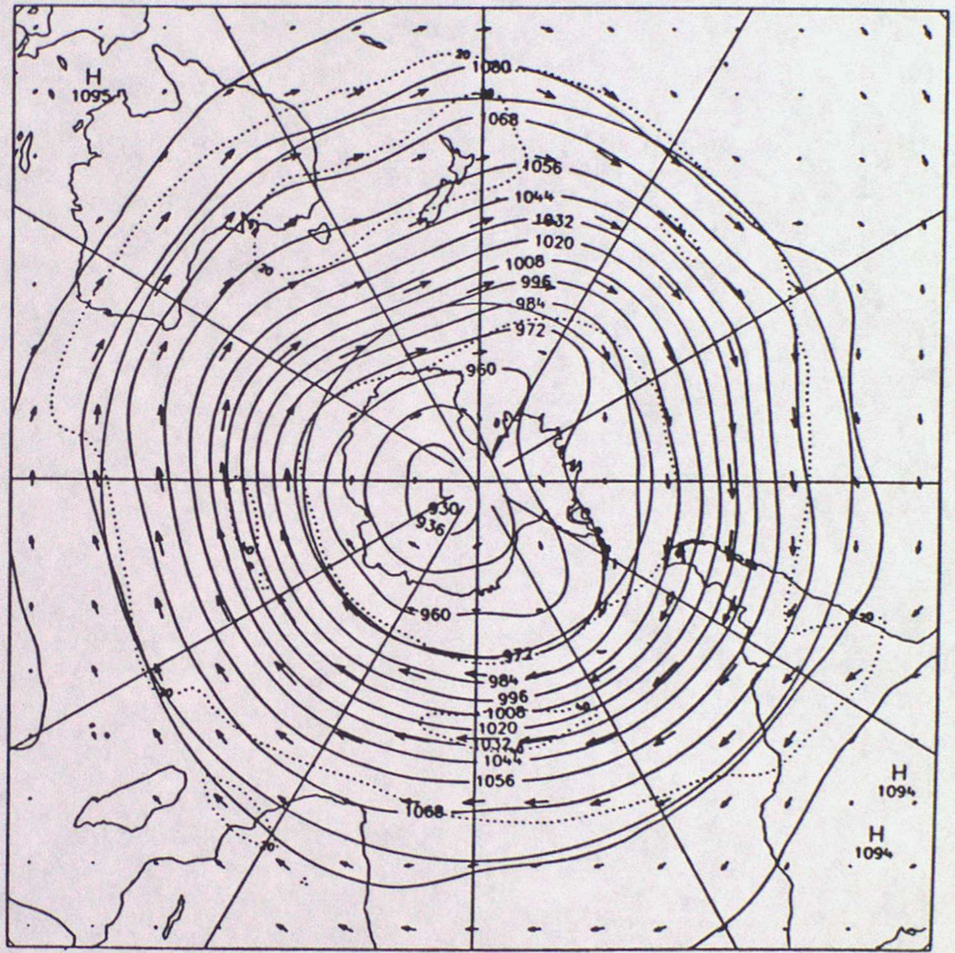
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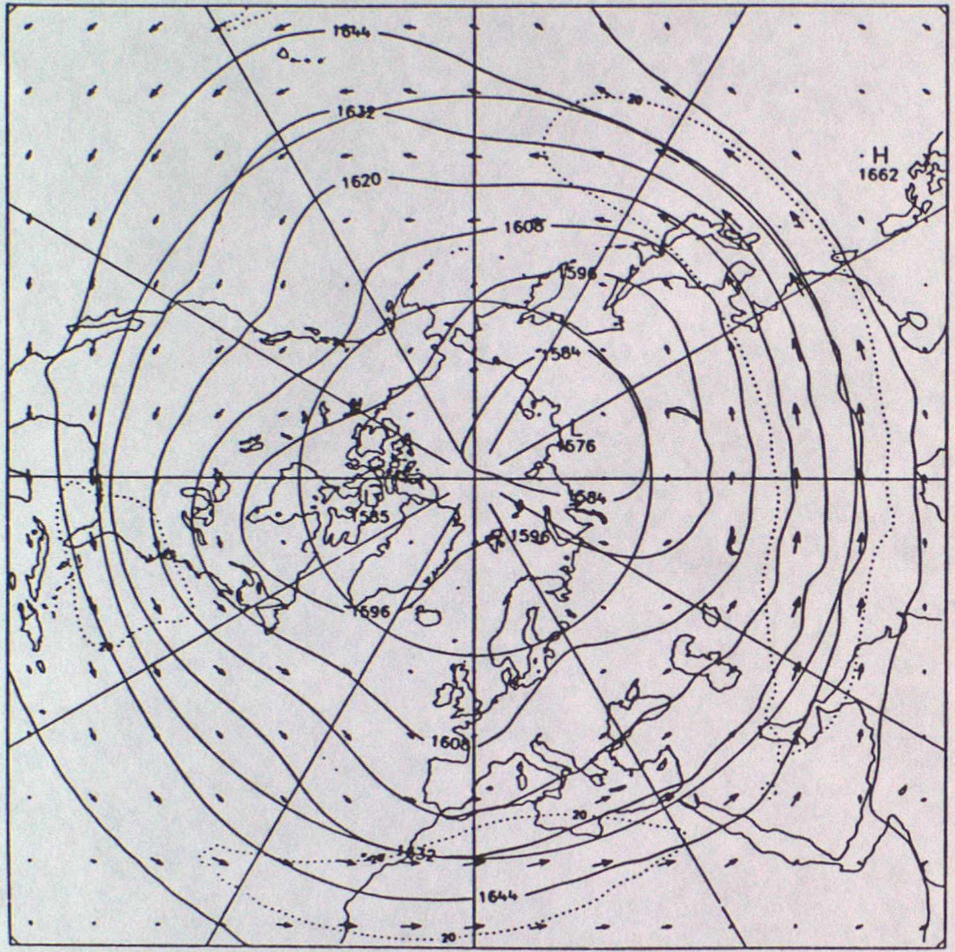
→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
LEVEL: 100 MB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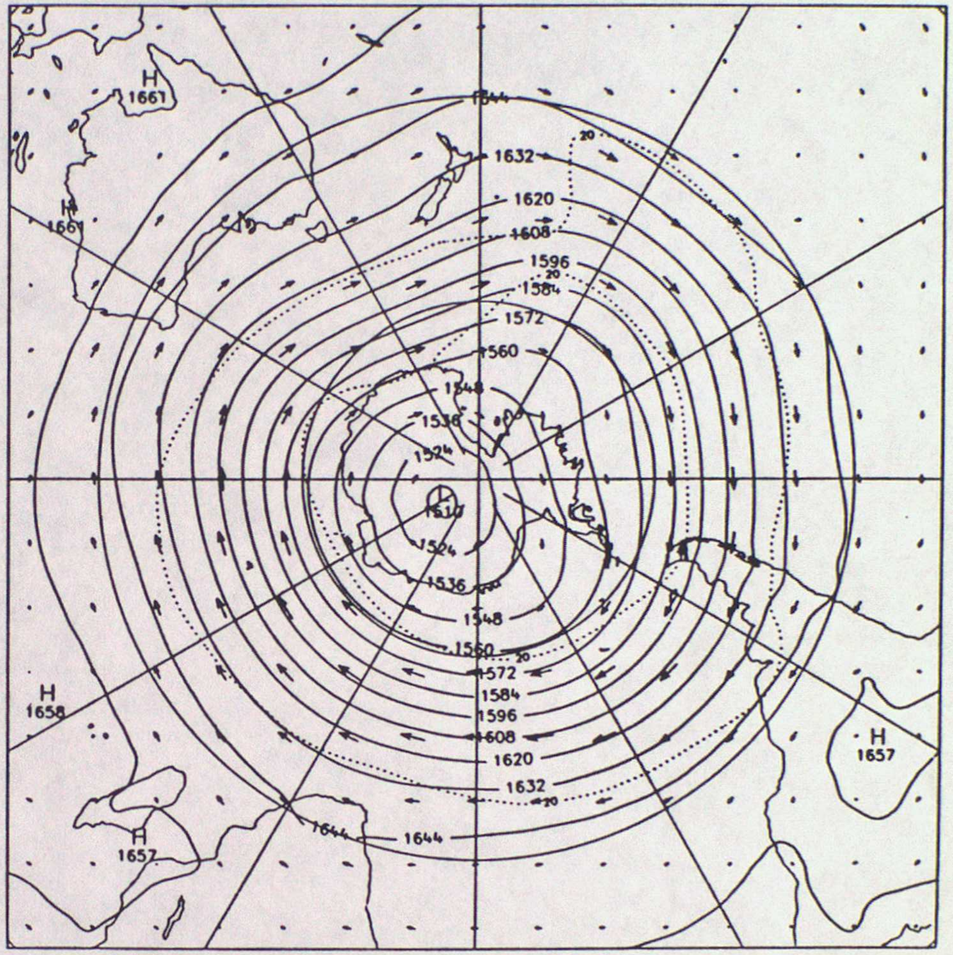
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
LEVEL: 100 MB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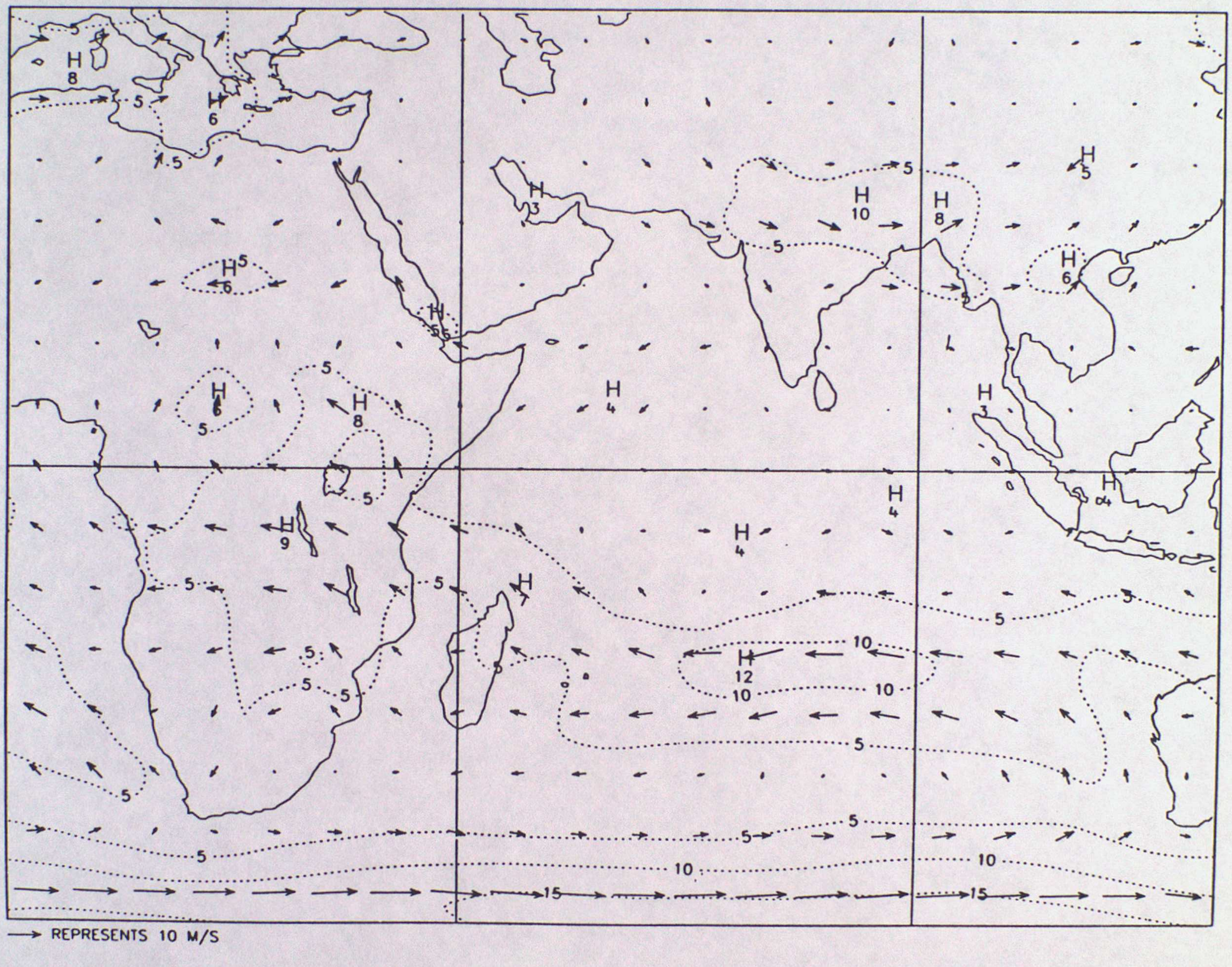
H
1658
H
1657
H
1657

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. APRIL 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
850 MBS. BETWEEN LONGS. 0 E - 120 E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H 10
H 8
H 5
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H 5 6
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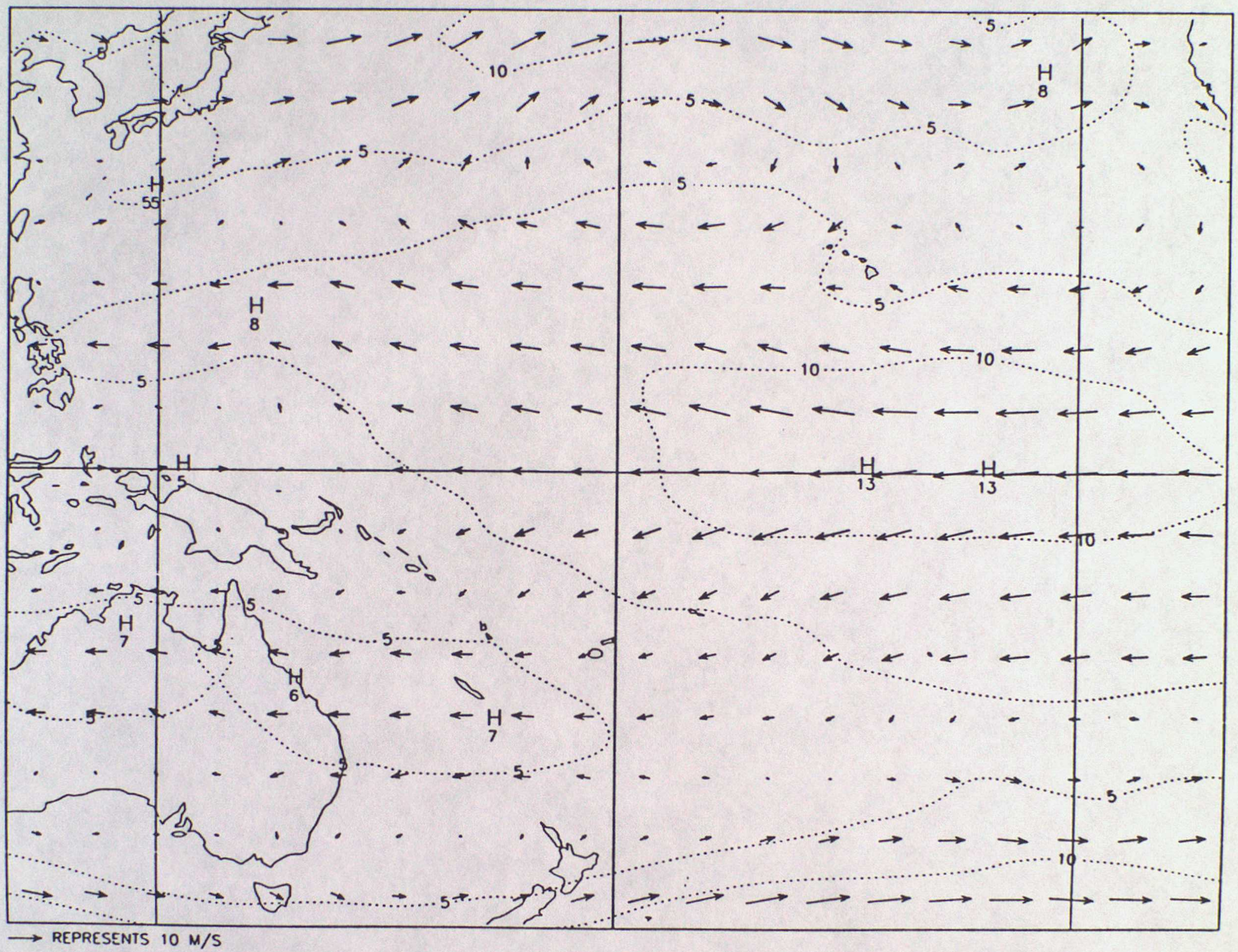
H 6
H 8
H 4
H 3
H 9
H 4
H 4
H 04
H 7
H 12
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. APRIL 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
850 MBS. BETWEEN LONGS. 120 E - 120 W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H
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5
H
7
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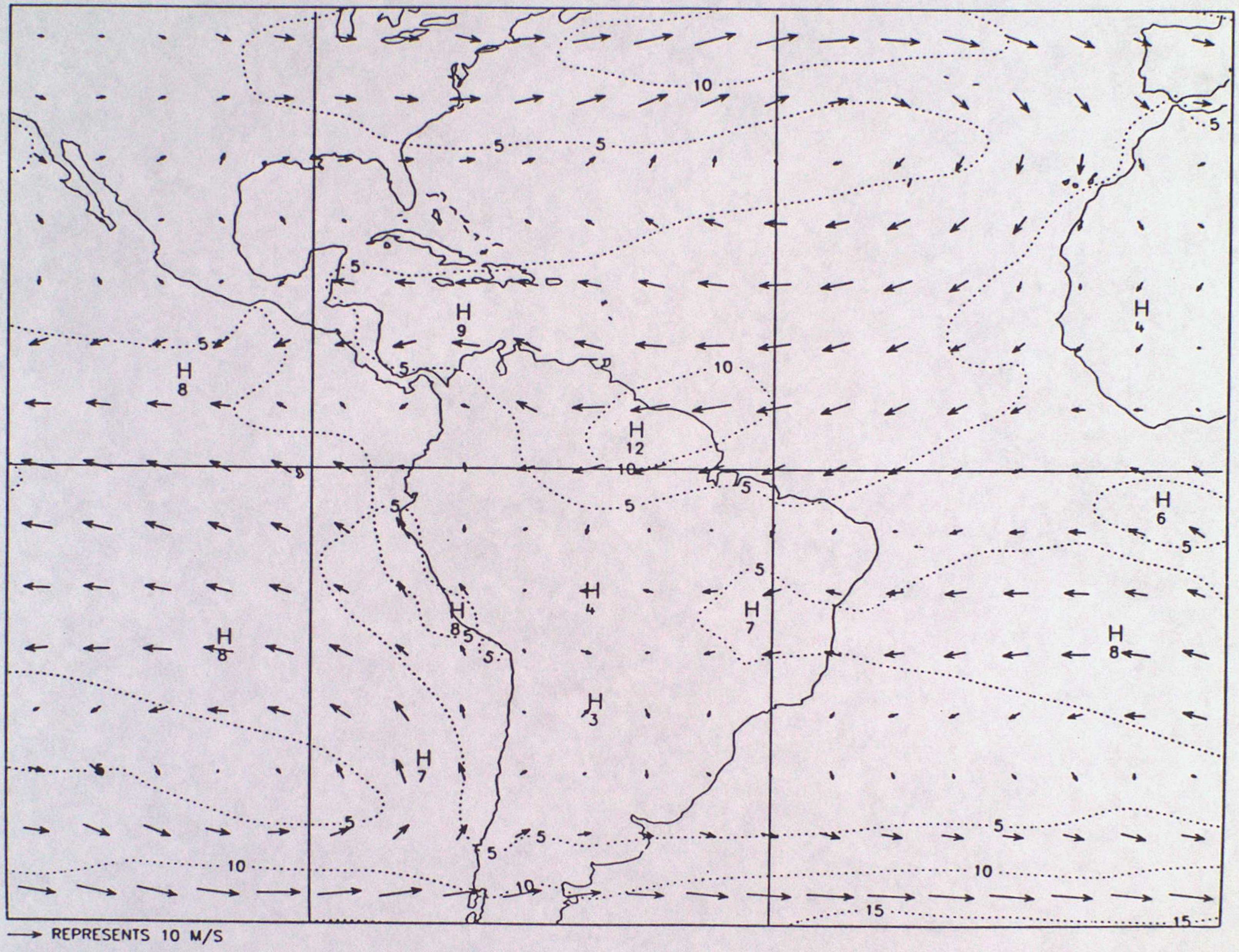
5
5
10
5

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. APRIL 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
850 MBS. BETWEEN LONGS. 120 W - 0 W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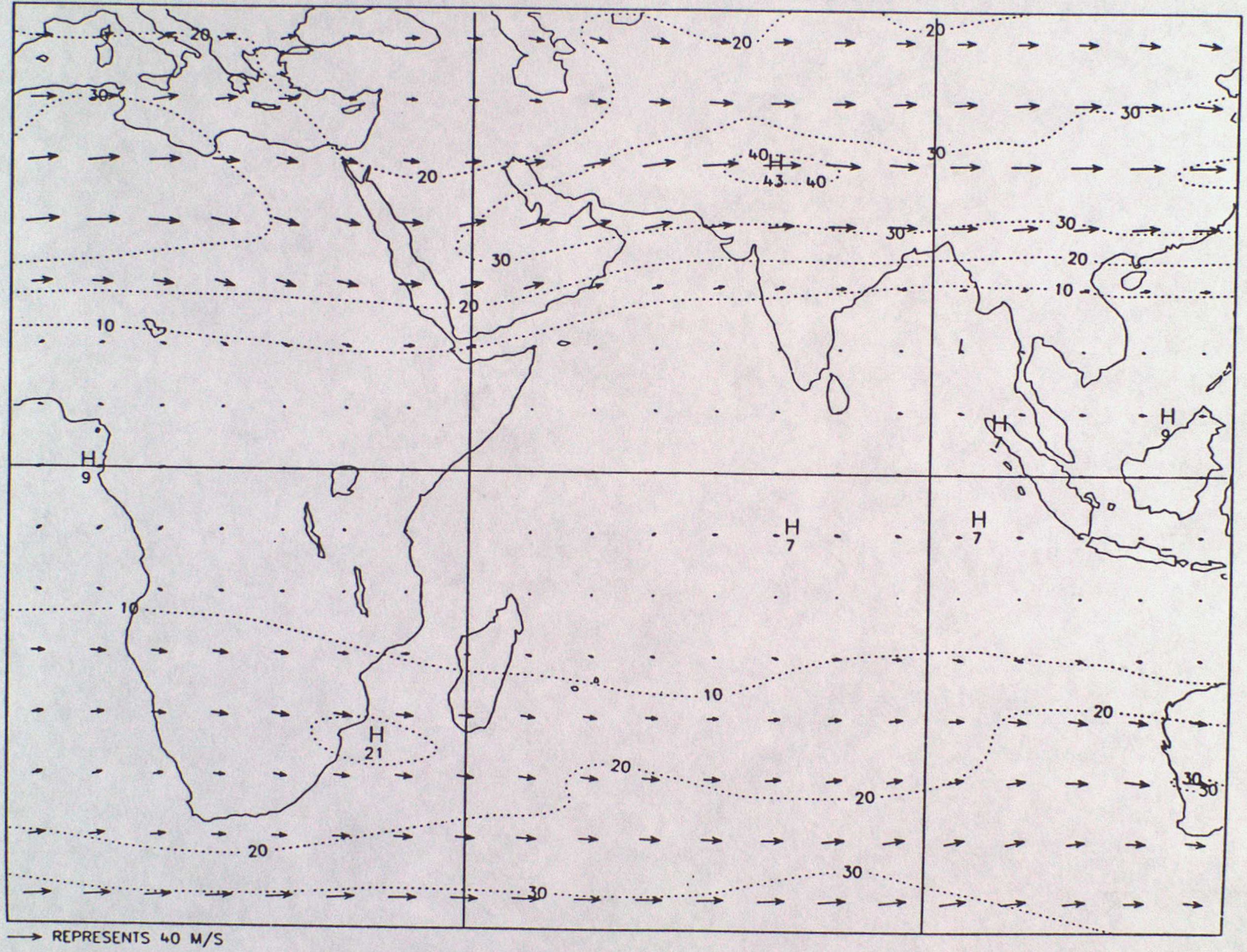
H 7
H 8
H 8
85
5
H 8
H 3
H 7
5
5
5
5
10
10
10
15
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
250 MBS.   BETWEEN LONGS. 0 E - 120 E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43
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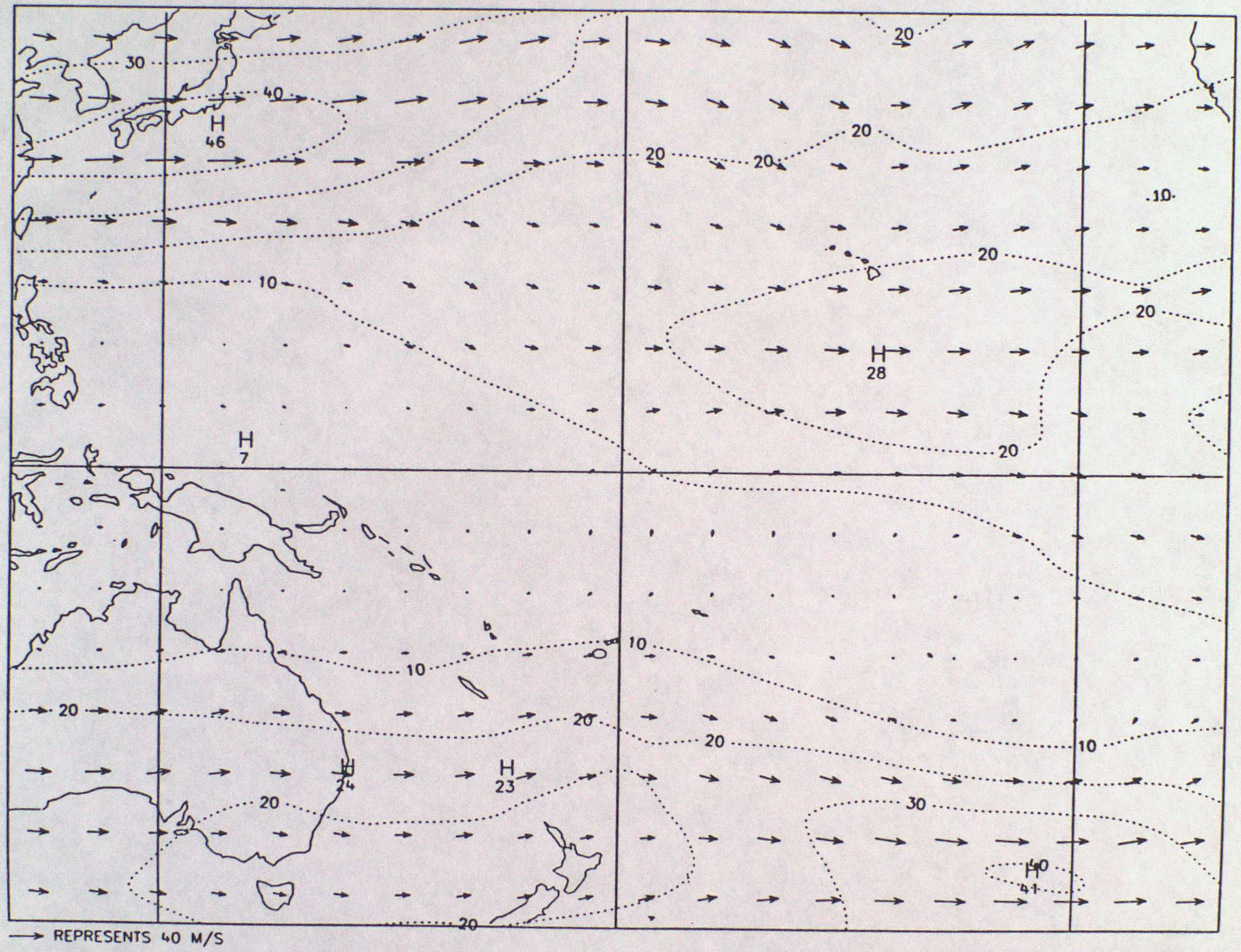
9
H
H
9
H
7
H
7
10
10
H
21
20
20
20
30
30
20
20
30
30

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. APRIL 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
250 MBS. BETWEEN LONGS. 120 E - 120 W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28
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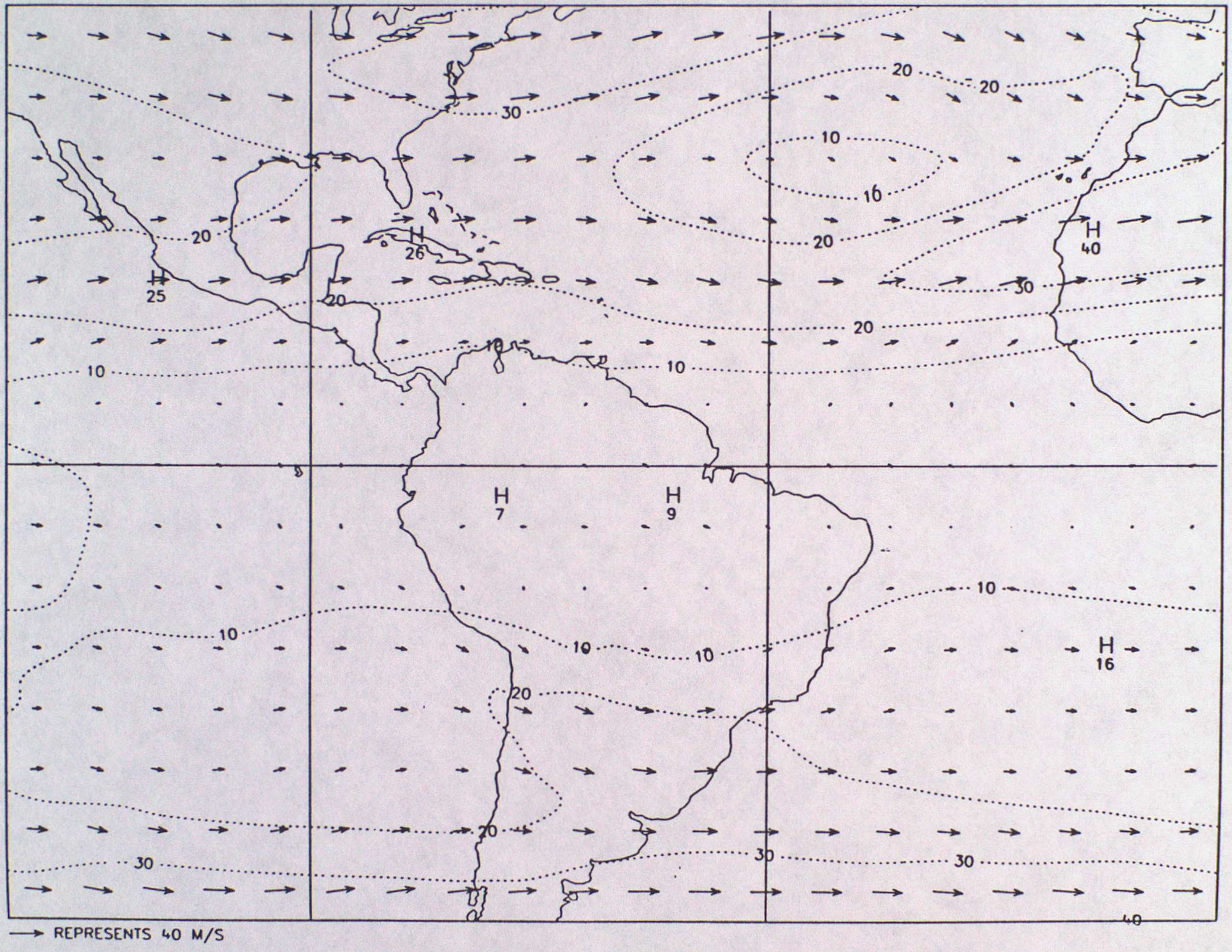
10
H
24
H
23
20
30
H
40
41
20
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   APRIL   1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/4/1989 DAY 91 TO 12Z ON 30/4/1989 DAY 120
250 MBS.   BETWEEN LONGS. 120 W - 0 W



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16
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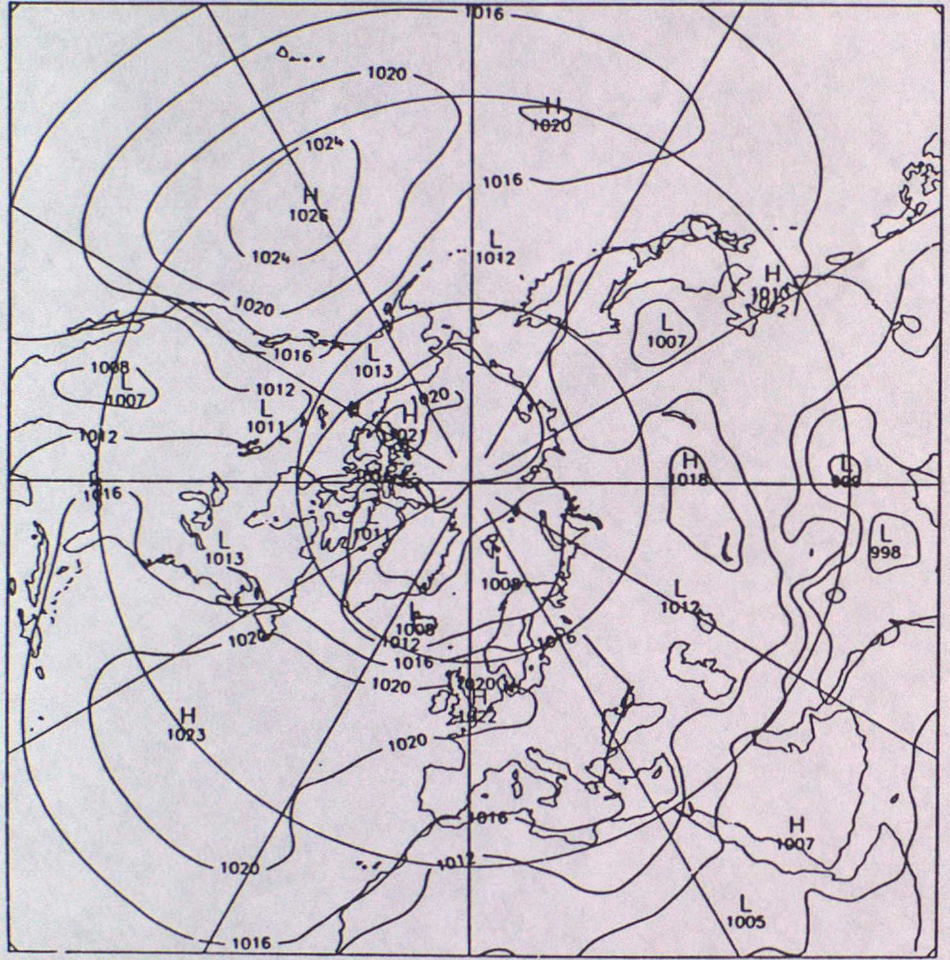
40
→ REPRESENTS 40 M/S

MAY
1989

OPERATIONAL ARCHIVE MEANS. MAY 1989
PMSL
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
SEA LEVEL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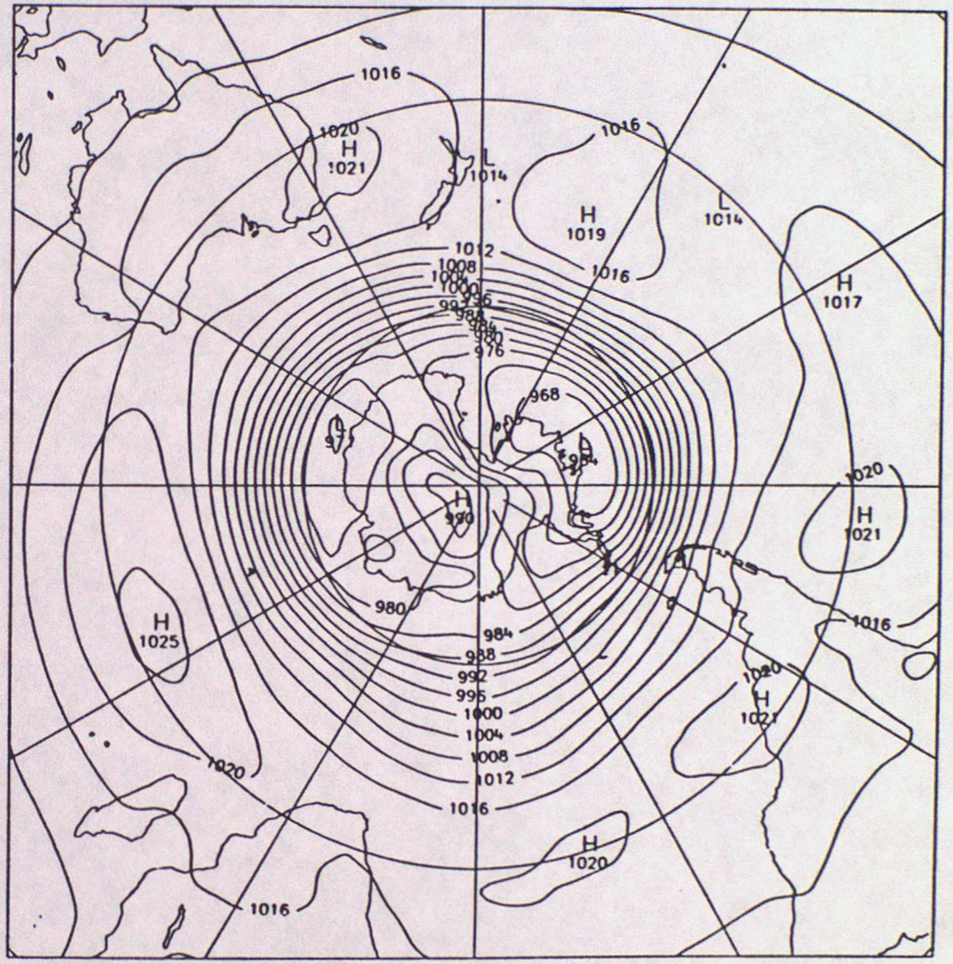
L
1011
1012
1016
L
1013
H
1018
L
1007
L
998
L
1012
L
1008
1008
1012
1016
1020
H
1023
1020
1016
1012
H
1007
L
1005
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. MAY 1989
PMSL
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
SEA LEVEL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1016
H
1017
1012
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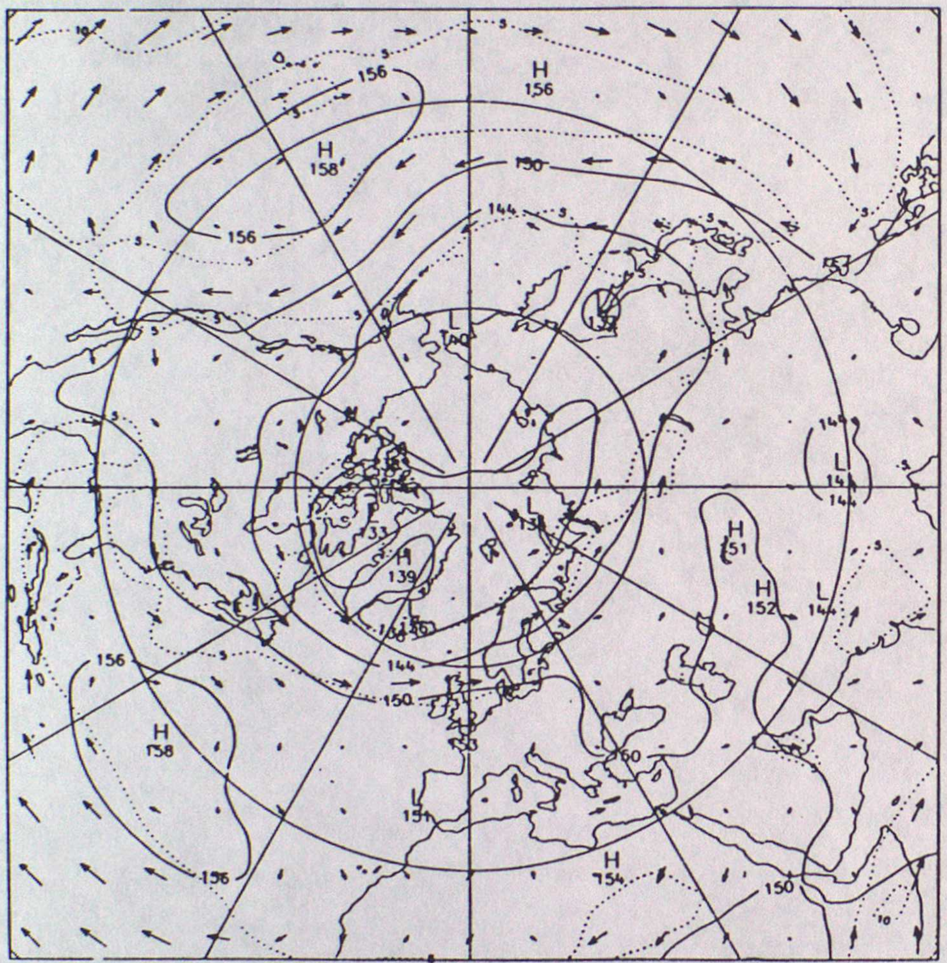
1004
1000
996
992
988
984
980
976
968
L
97
H
990
1020
H
1021
H
1025
980
984
988
992
996
1000
1004
1008
1012
1016
1016
1020
H
1021
1020
H
1020
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 850 MB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150
H
158
156
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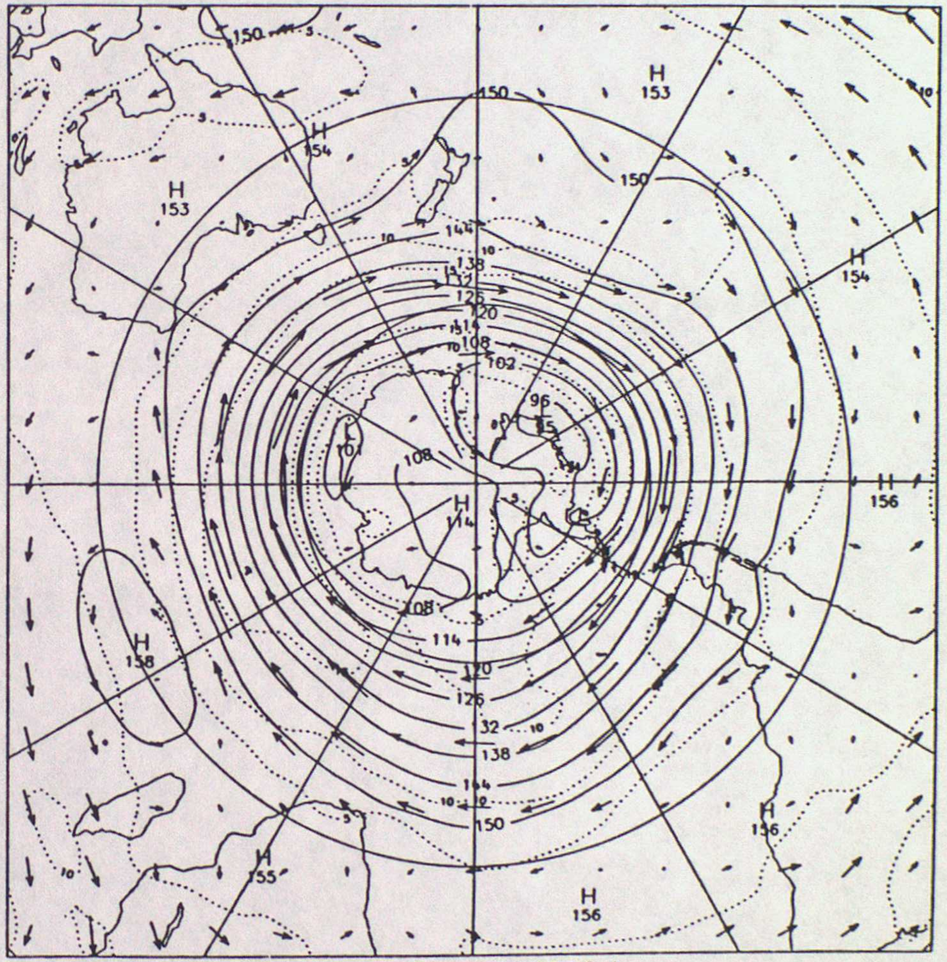
151
H
154
150
H
151
H
152
L
144
L
141
144
10
5

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 850 MB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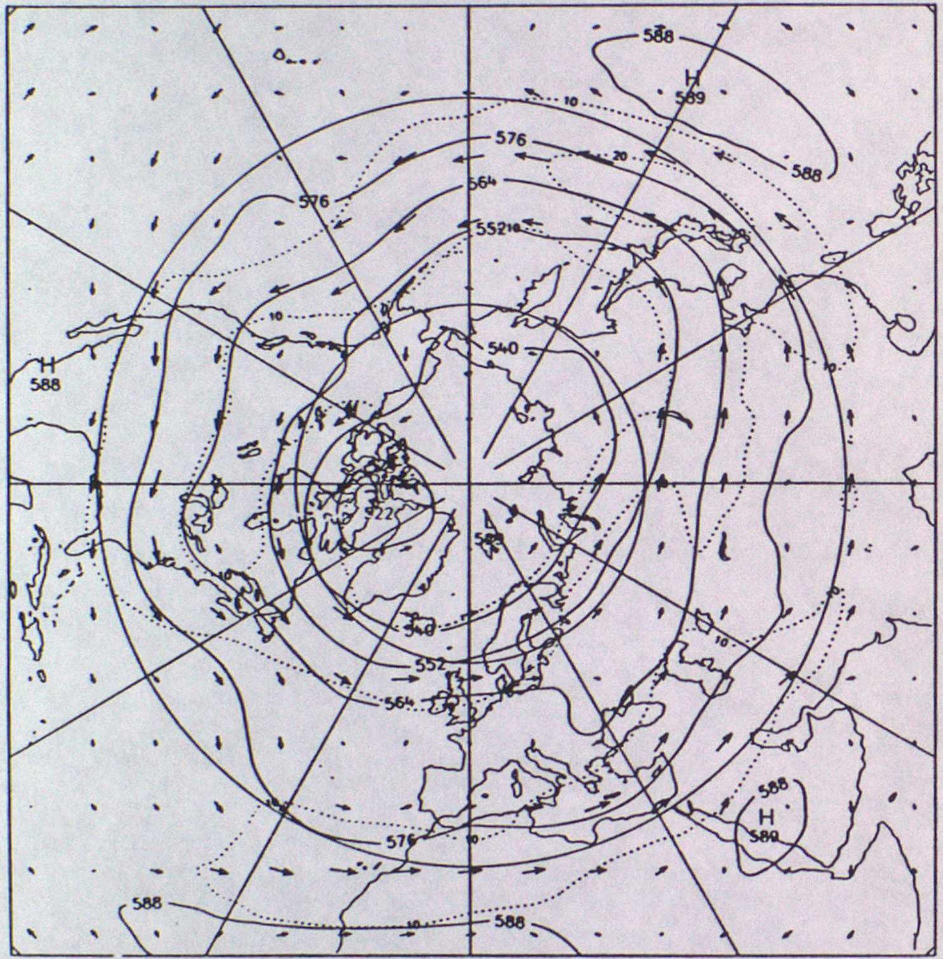
H
158
H
155
H
156
H
156
H
154
10
5

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 500 MB



588
H
589
588
576
564
552
540
522
H
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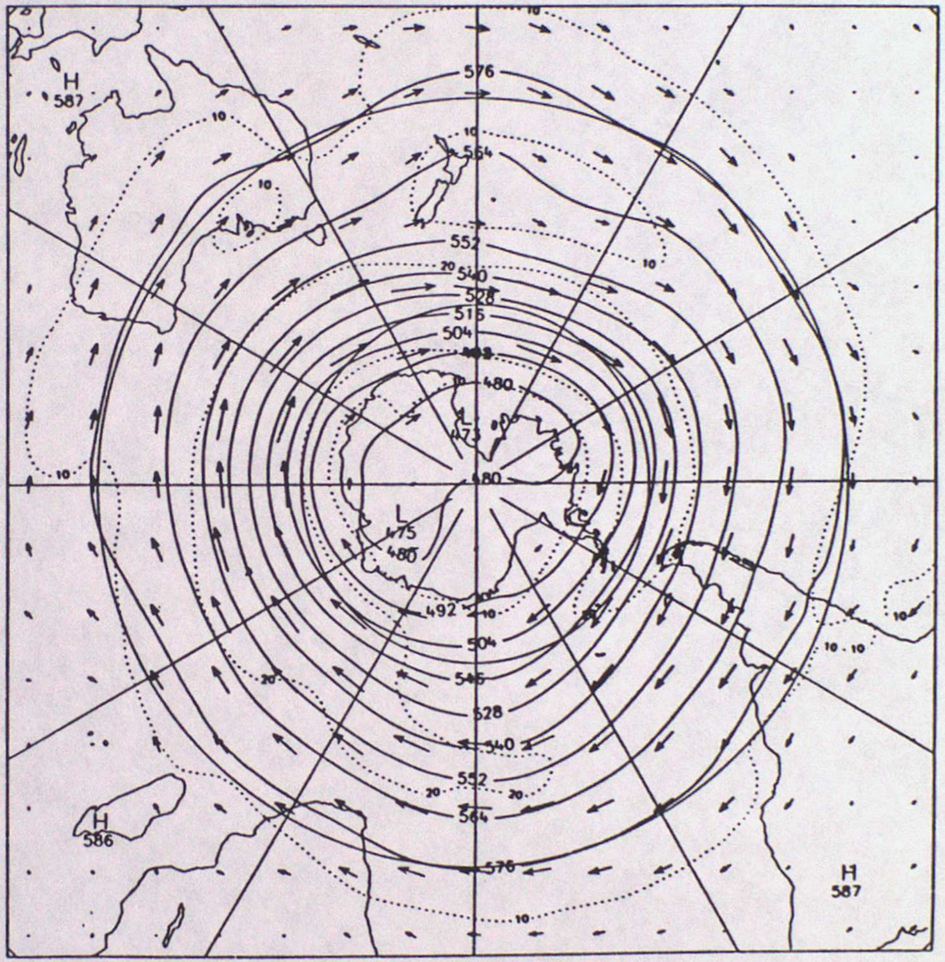
540
552
564
576
588
H
589
588
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 500 MB



H
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540
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516
504
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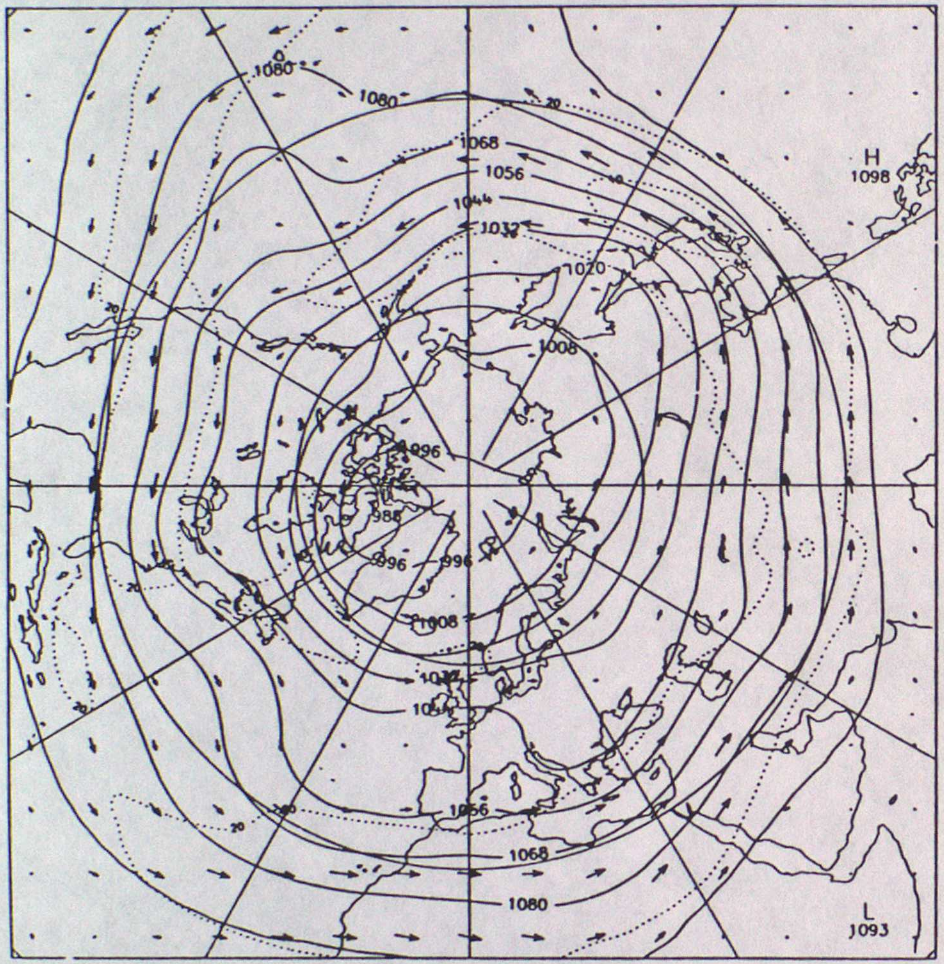
L
473
480
L
475
480
492
504
516
528
540
552
564
576
H
586
H
587
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 250 MB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996
988
996
996
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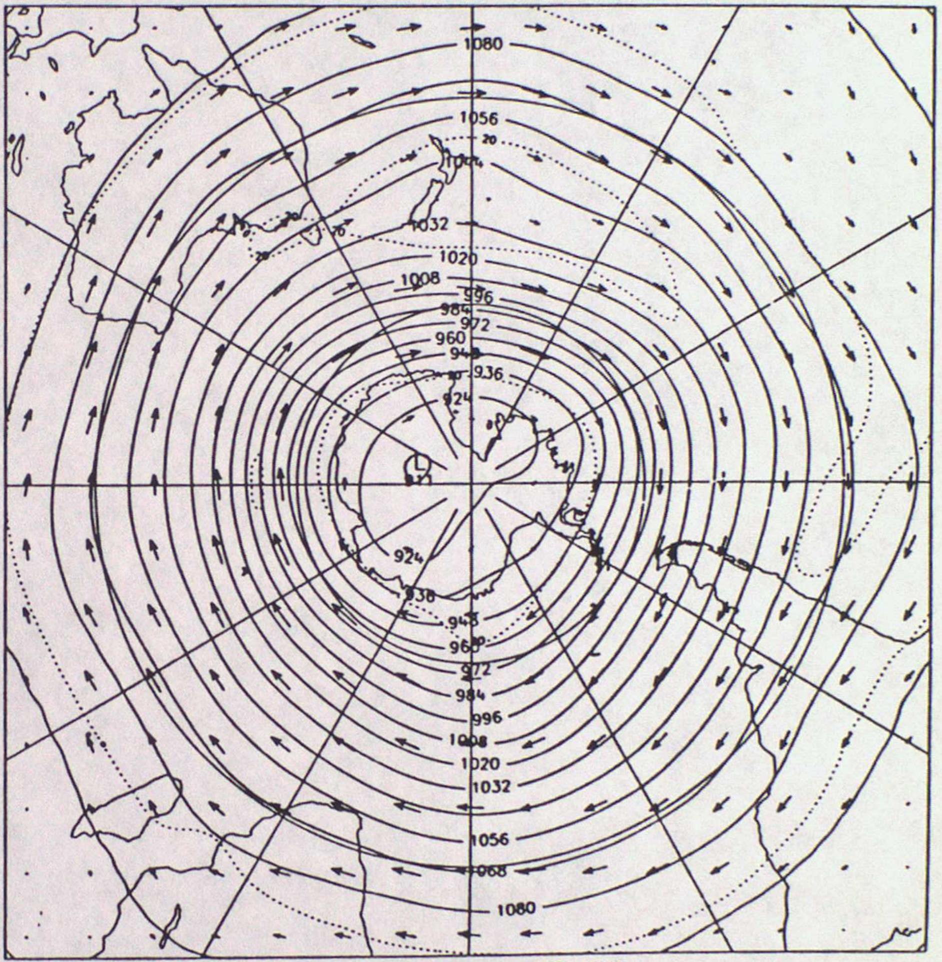
1032
1044
1056
1068
1080
H
1098
L
1093
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 250 MB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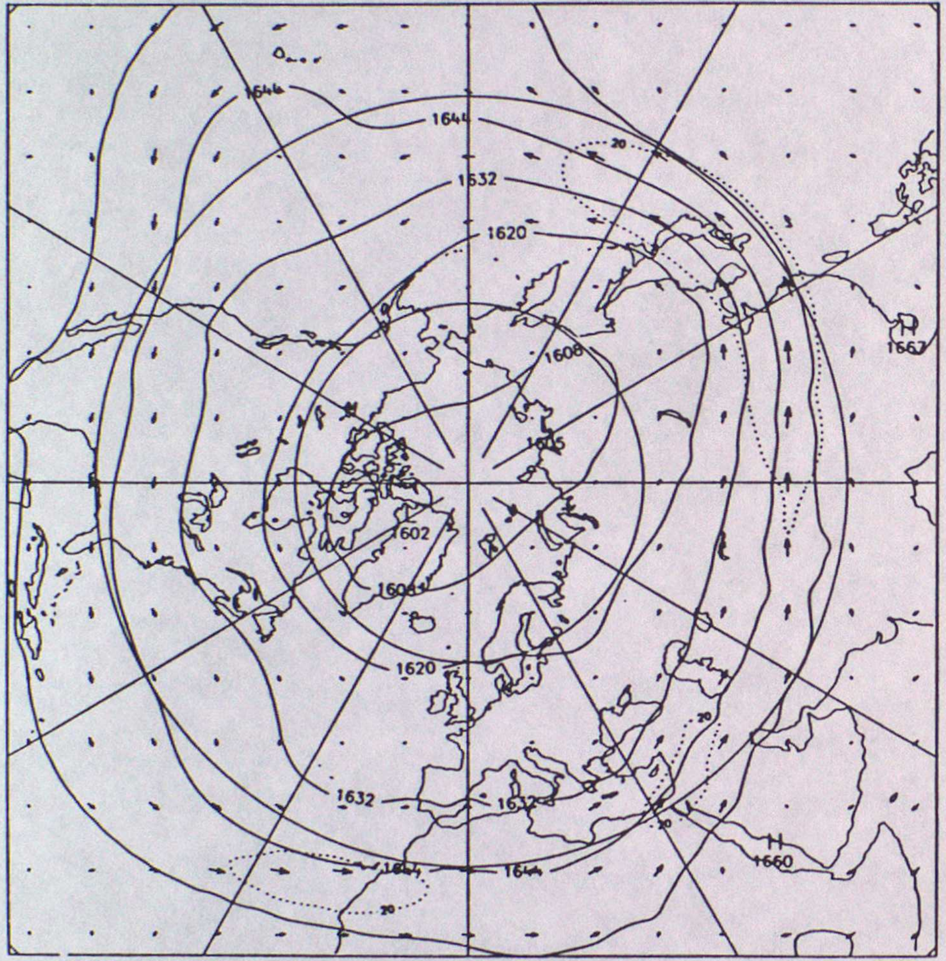
960
972
984
996
1008
1020
1032
1056
1068
1080
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 100 MB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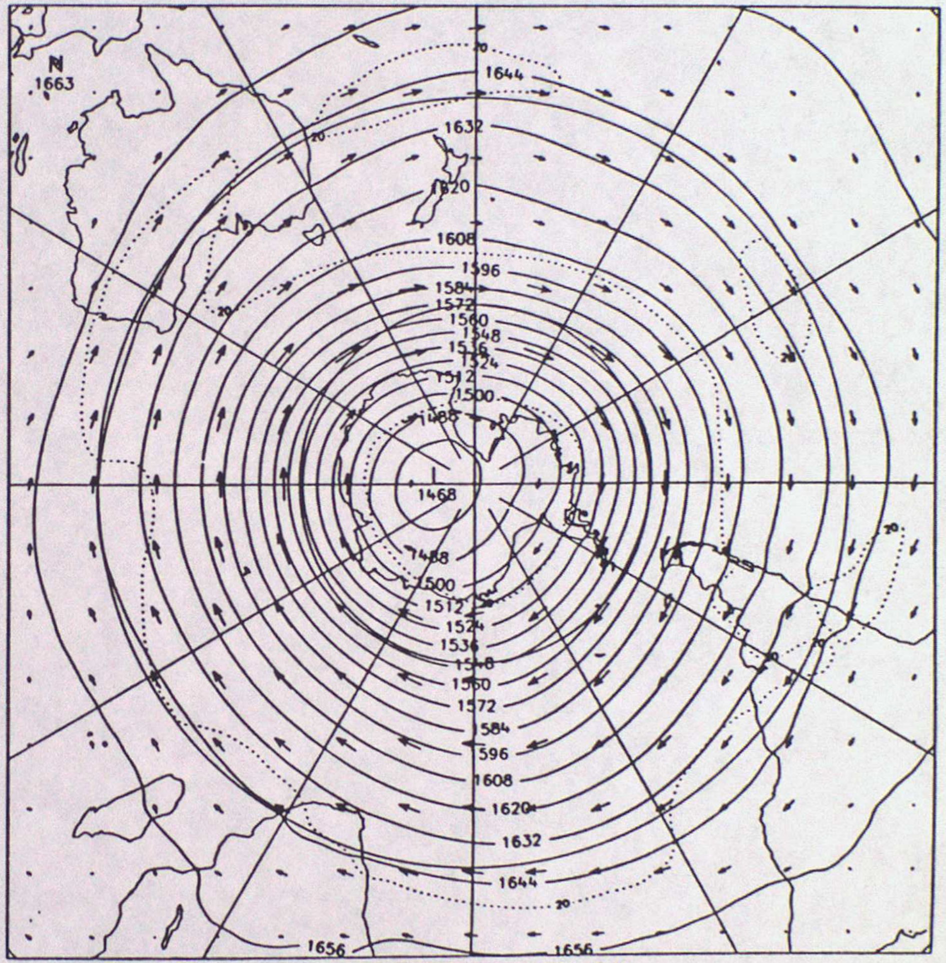
H
H
20
20
20
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 100 MB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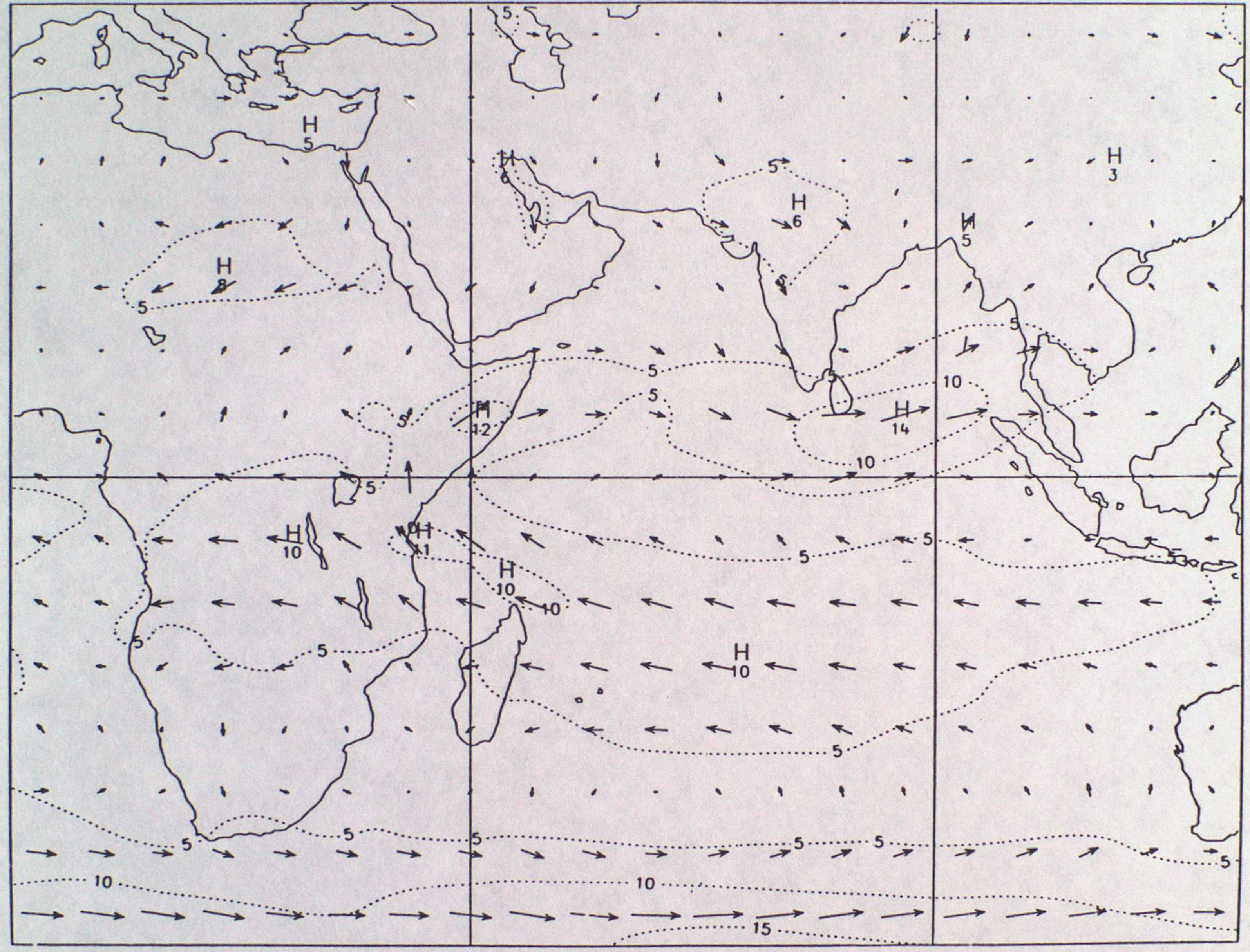
1500
1512
1524
1536
1548
1560
1572
1584
1596
1608
1620
1632
1644
1656
1656
20
20
20
20
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAY 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
850 MBS. BETWEEN LONGS. 0 E - 120 E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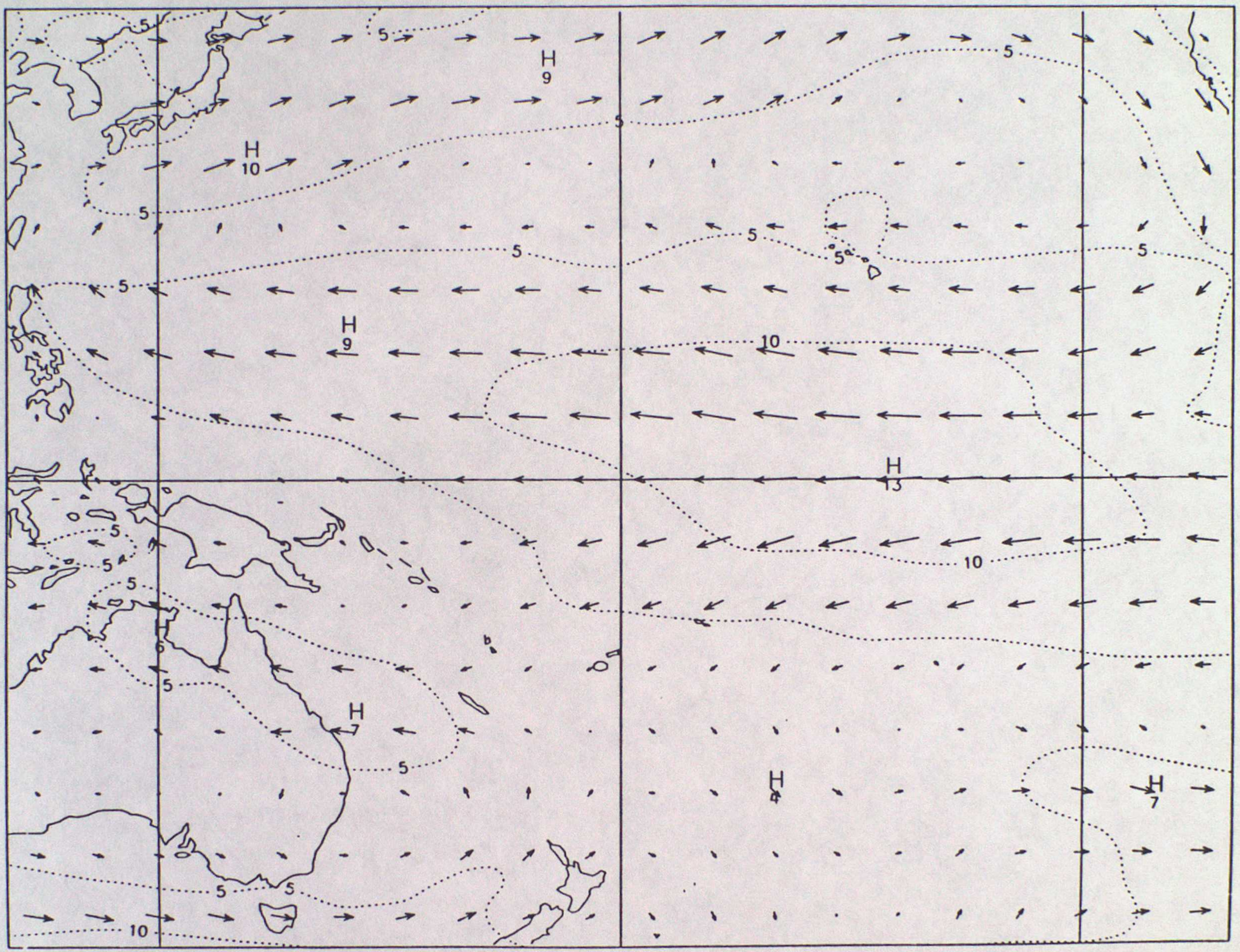
H 5
H 12
H 14
H 10
H 11
H 10
H 10
5
10
15

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. MAY 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
850 MBS. BETWEEN LONGS. 120 E - 120 W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H
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9
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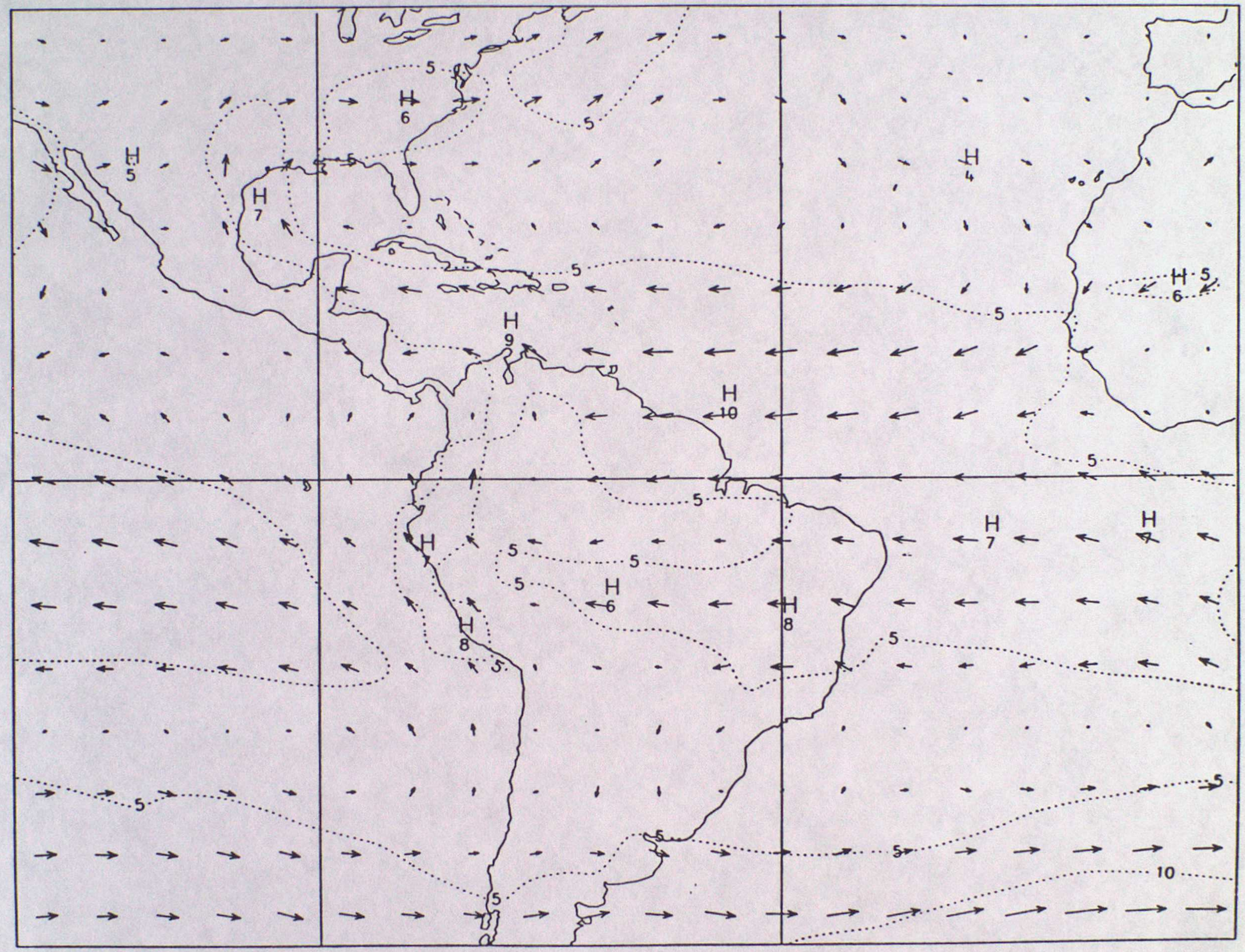
13
H
6
H
7
H
4
H
7
5
10

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   MAY   1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
850 MBS.   BETWEEN LONGS. 120 W - 0 W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H 4
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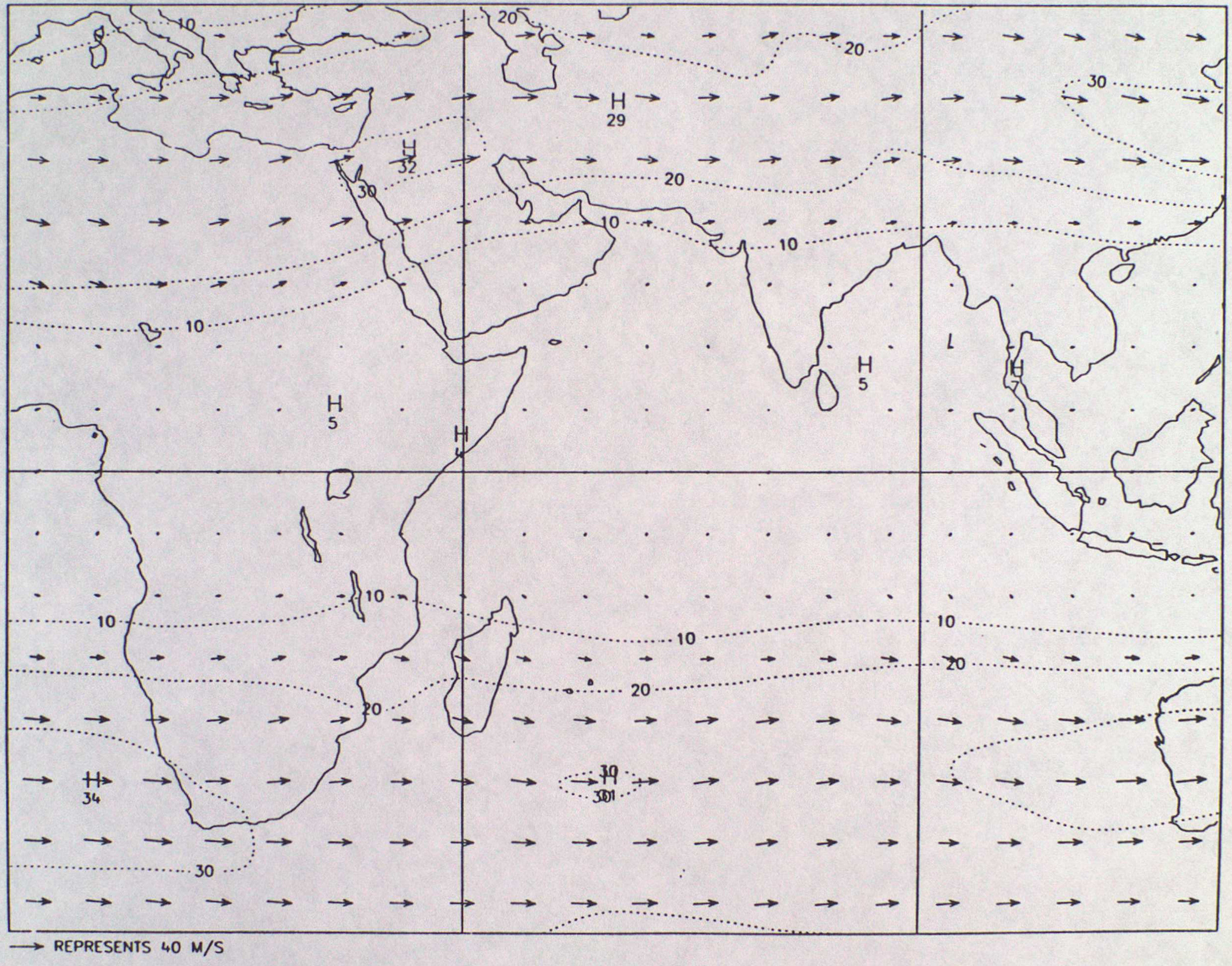
H 9
H 10
H 8
H 6
H 8
H 7
H
H
5
10

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   MAY   1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
250 MBS.   BETWEEN LONGS. 0 E - 120 E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H
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L
H
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H
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H
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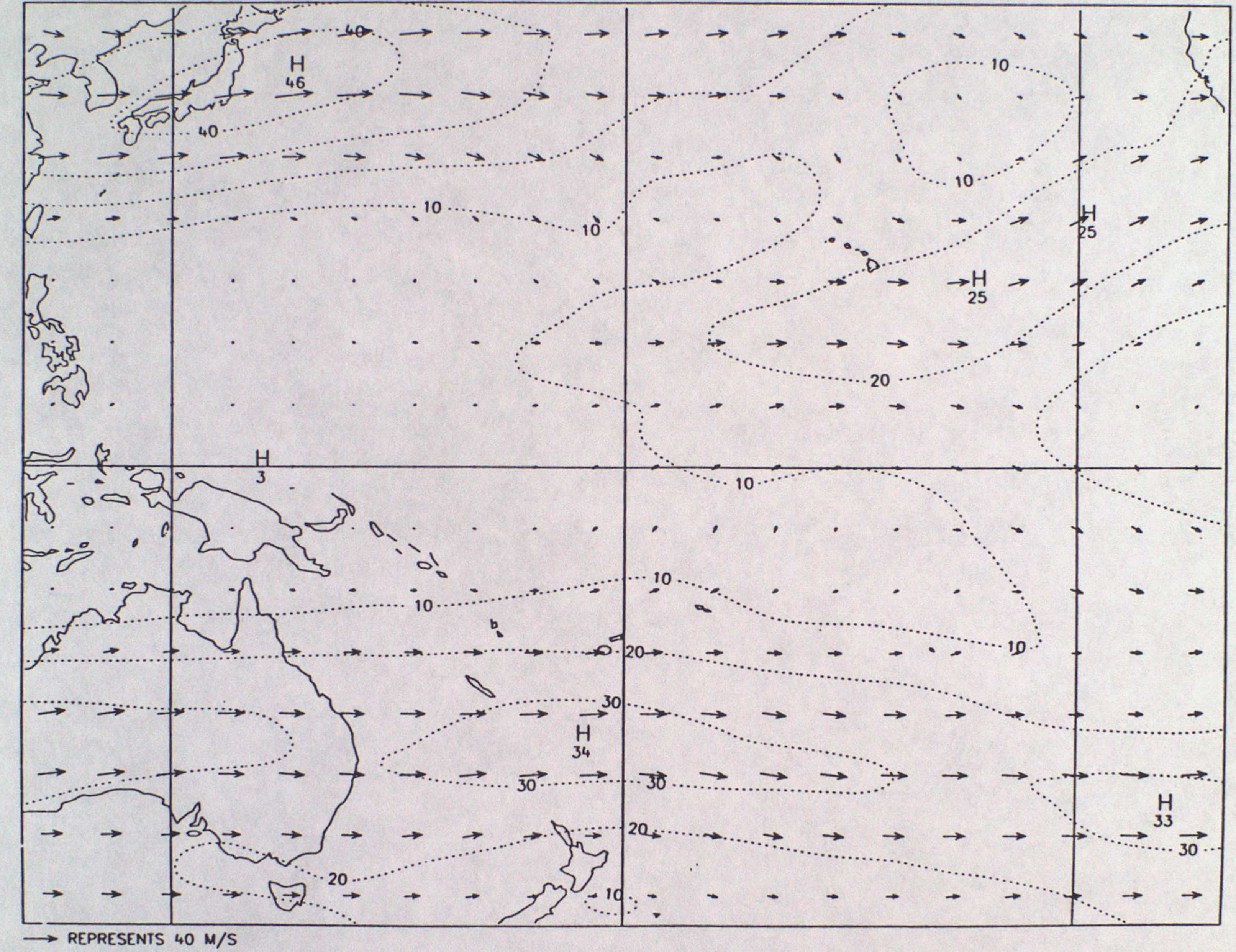
7
10
10
10
10
20
20
20
H
34
30
H
301
30
REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   MAY   1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
250 MBS.   BETWEEN LONGS. 120 E - 120 W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34
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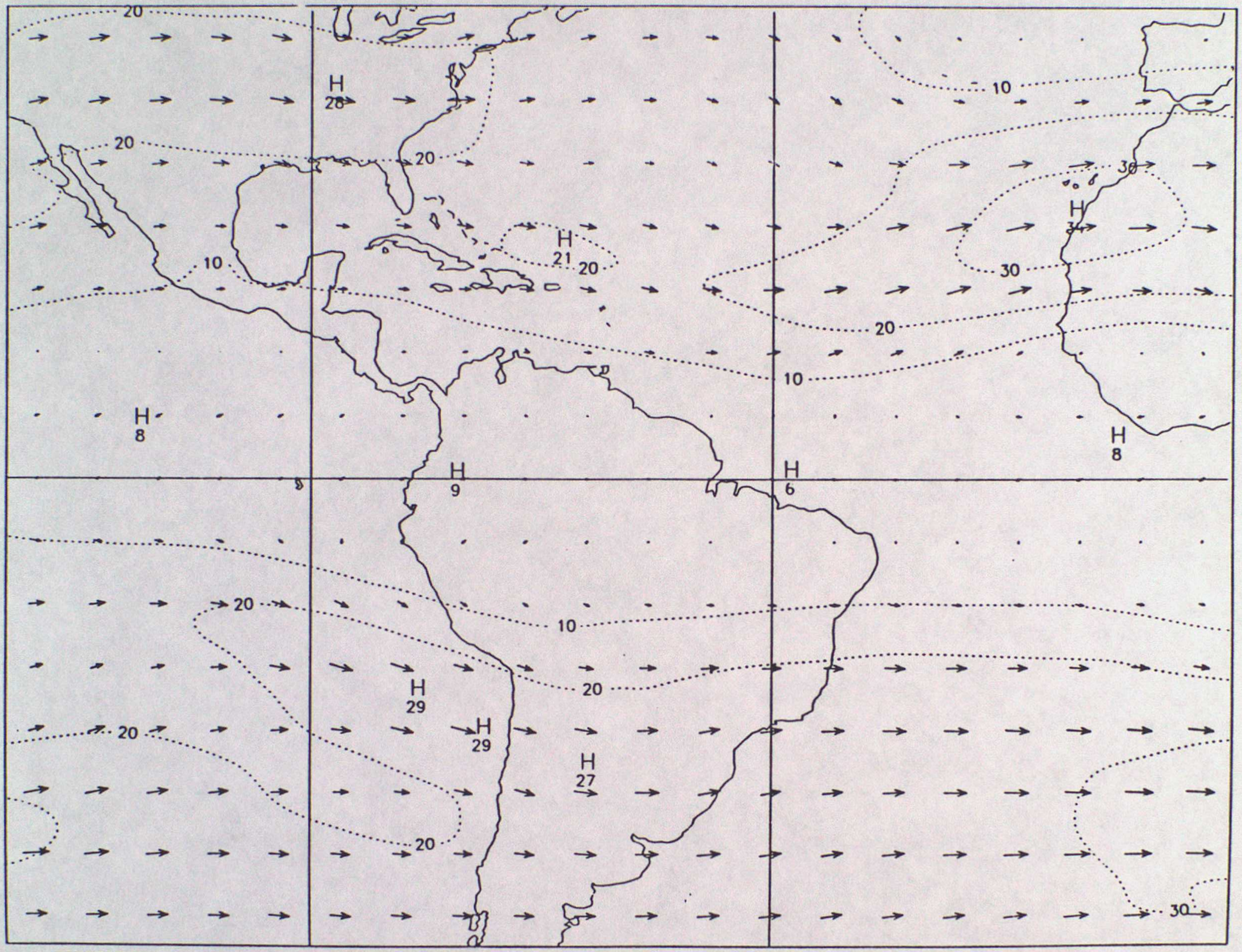
20
10
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. MAY 1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/5/1989 DAY 121 TO 12Z ON 31/5/1989 DAY 151
250 MBS. BETWEEN LONGS. 120 W - 0 W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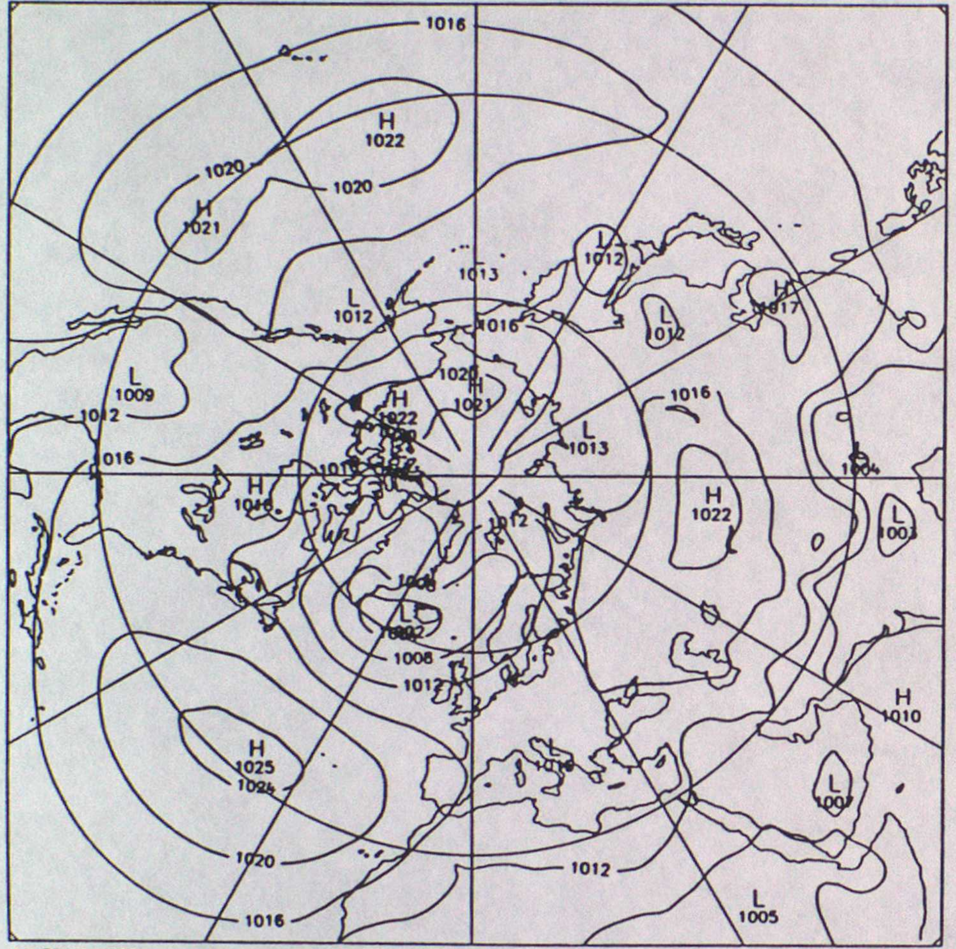
H 21
H 34
H 8
H 9
H 6
H 29
H 27

→ REPRESENTS 40 M/S

MARCH/APRIL/MAY
1989

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
PMSL
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
SEA LEVEL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H
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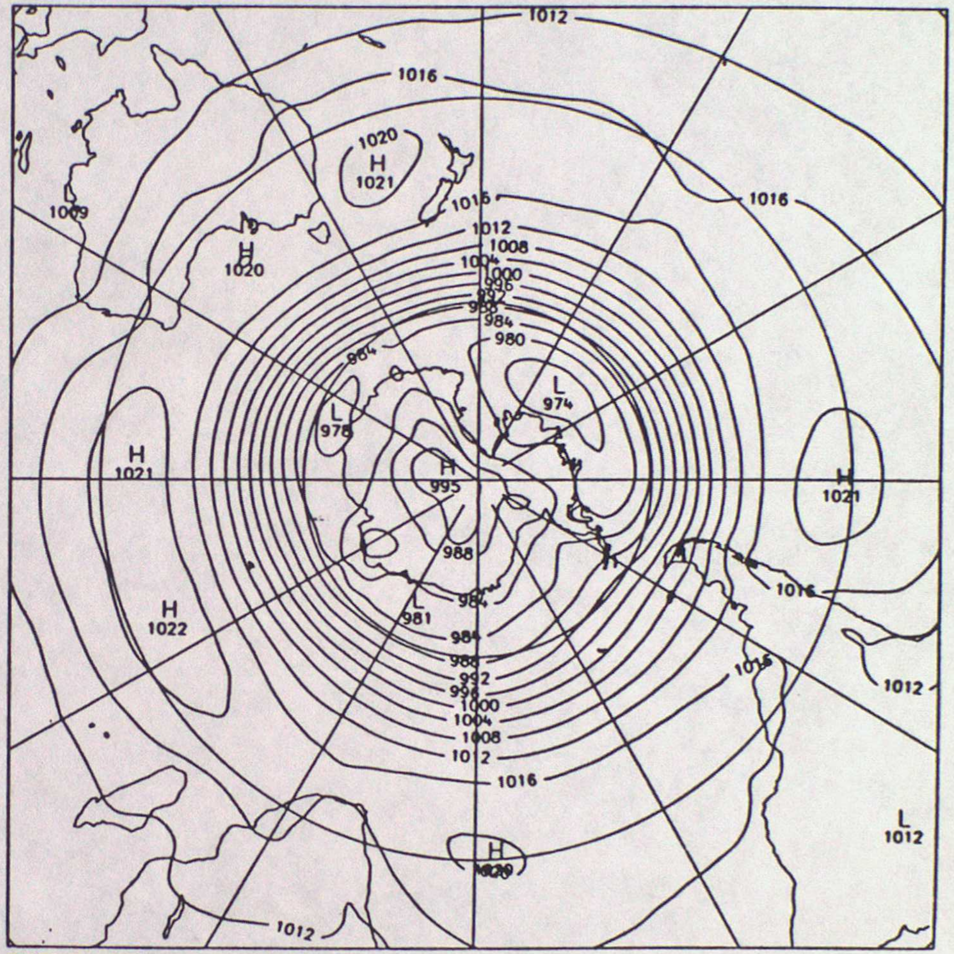
1024
H
1010
L
1007
L
1005
1012
1020
1016

CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
PMSL
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
SEA LEVEL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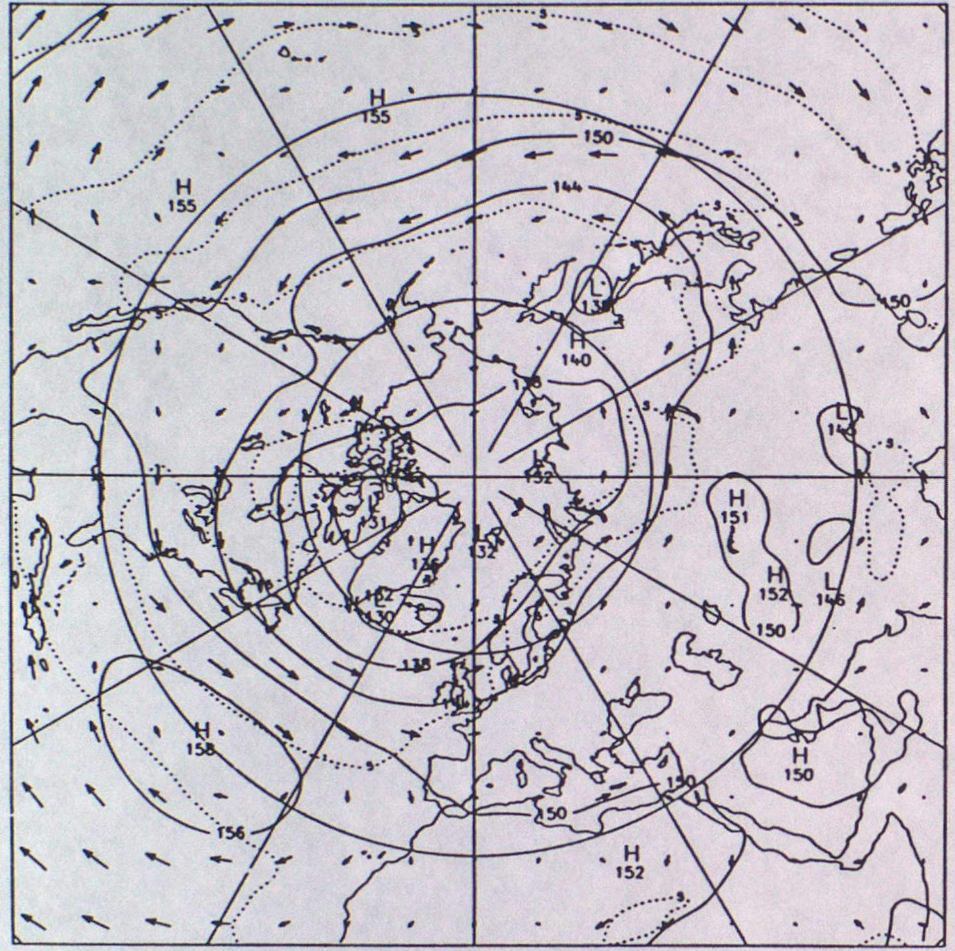
978
H
995
L
981
H
1021
H
1022
H
1021
1016
1012
L
1012
H
1020
1012

CONTOUR INTERVAL: 4 MB   UNITS: MB

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 850 MB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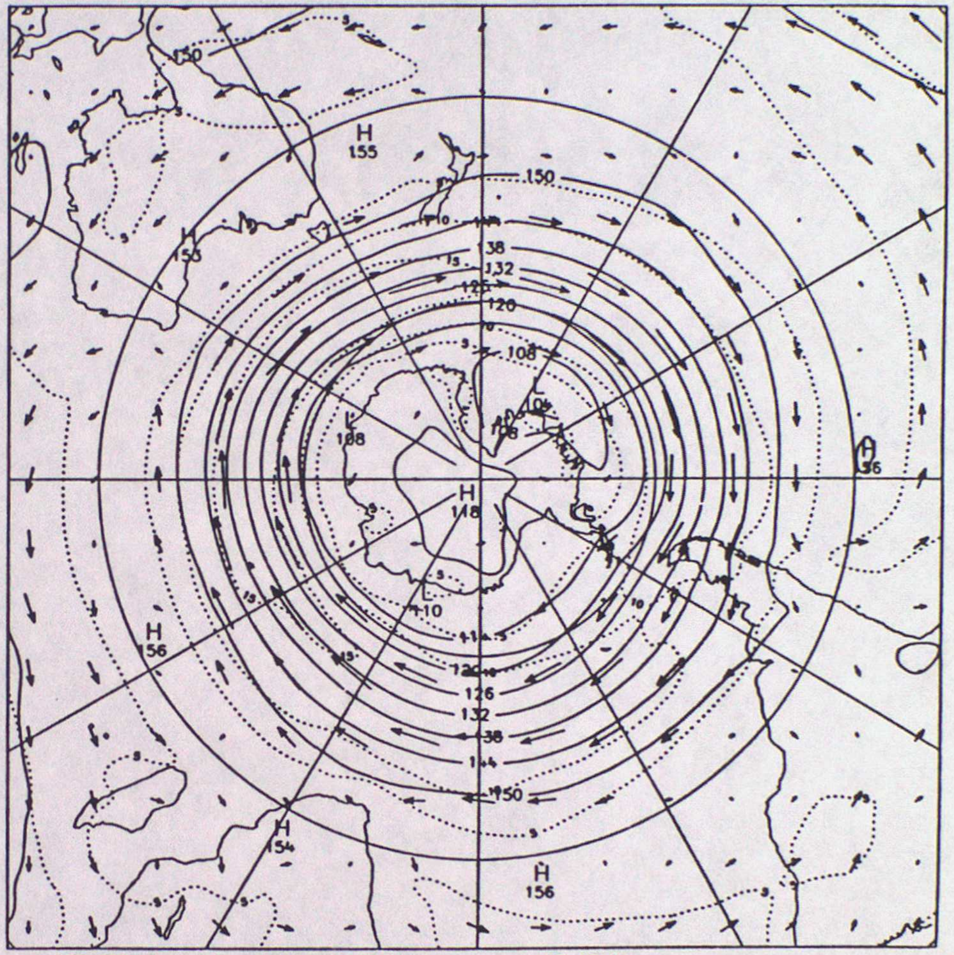
152
L
146
L
146
150
H
150
150
150
H
152
H
158
156
150

⟶ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 850 MB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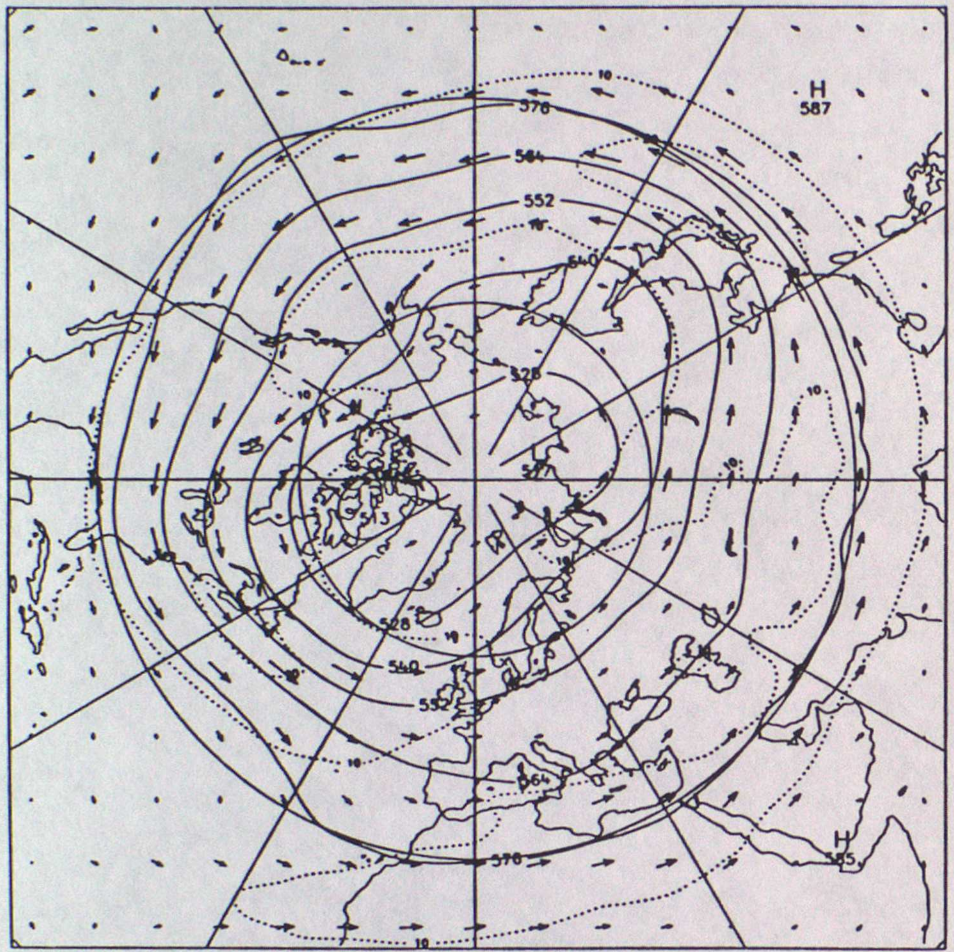
132
138
144
150
H
156
H
156
H
154
H
156

⟶ REPRESENTS 10 M/S   CONTOUR INTERVAL: 60 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 500 MB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552
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10
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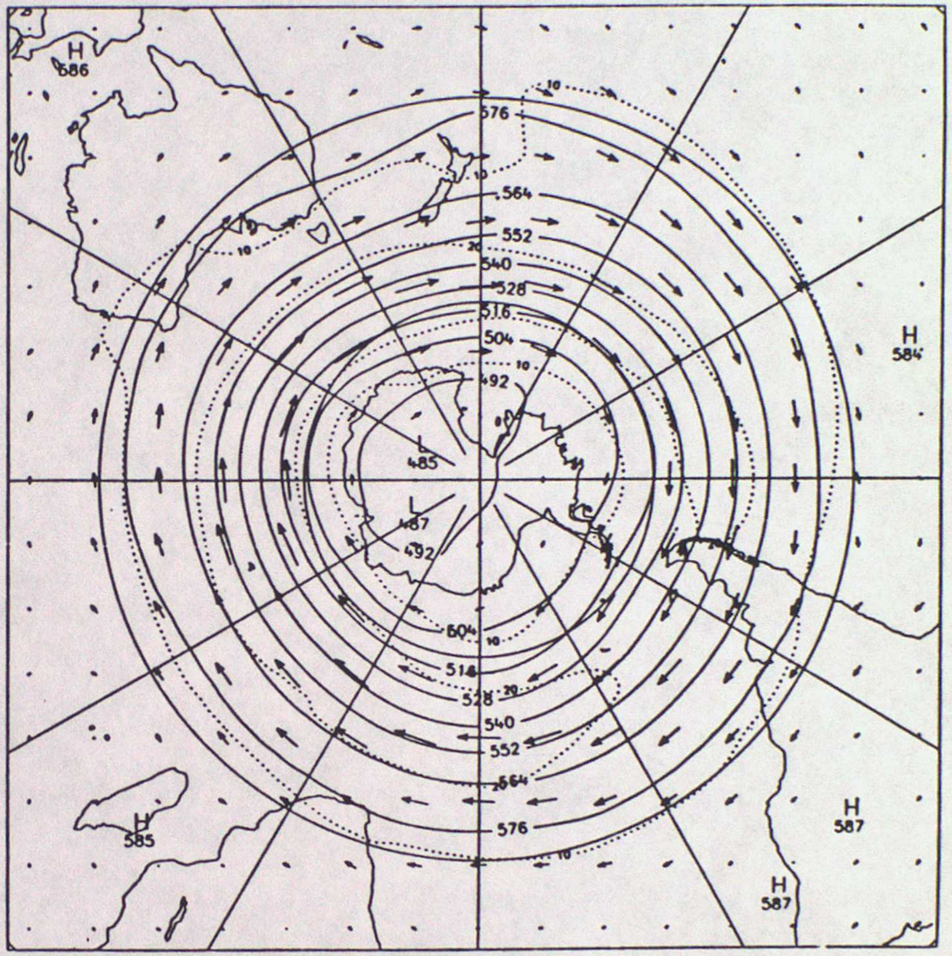
585

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 500 MB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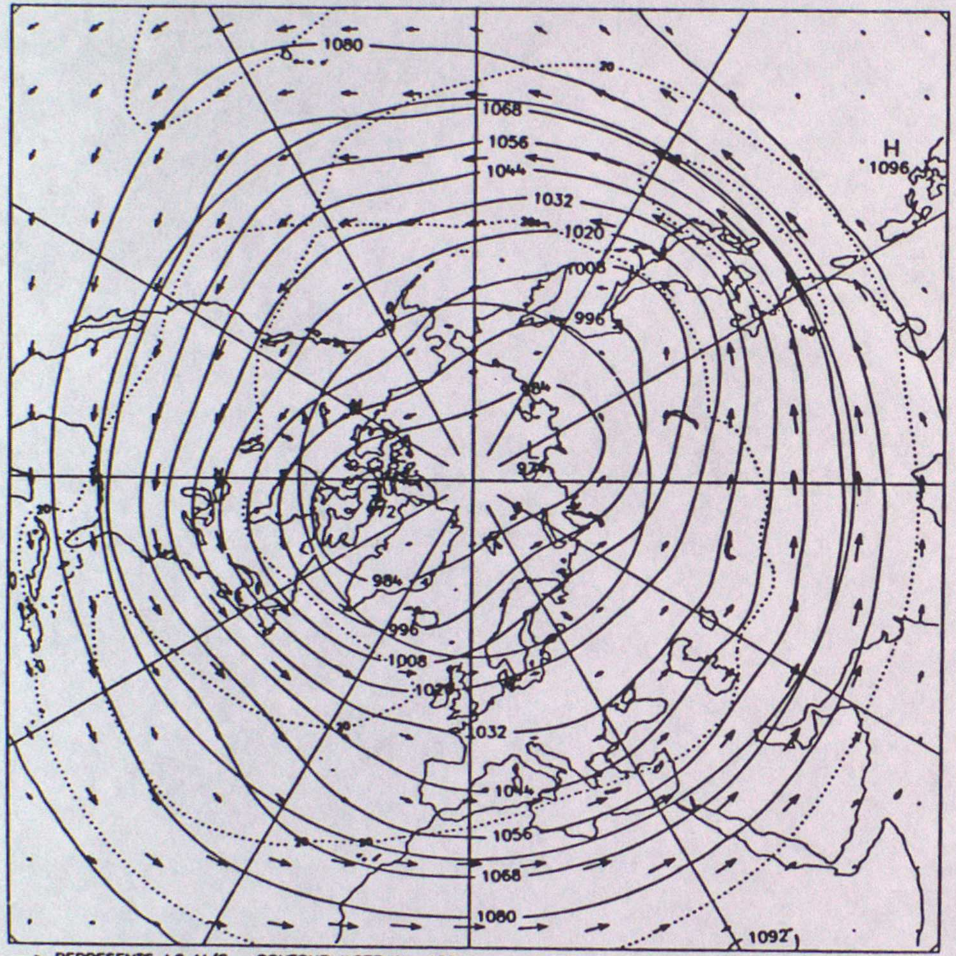
564
576
10
20
H
584
H
585
H
587
H
587

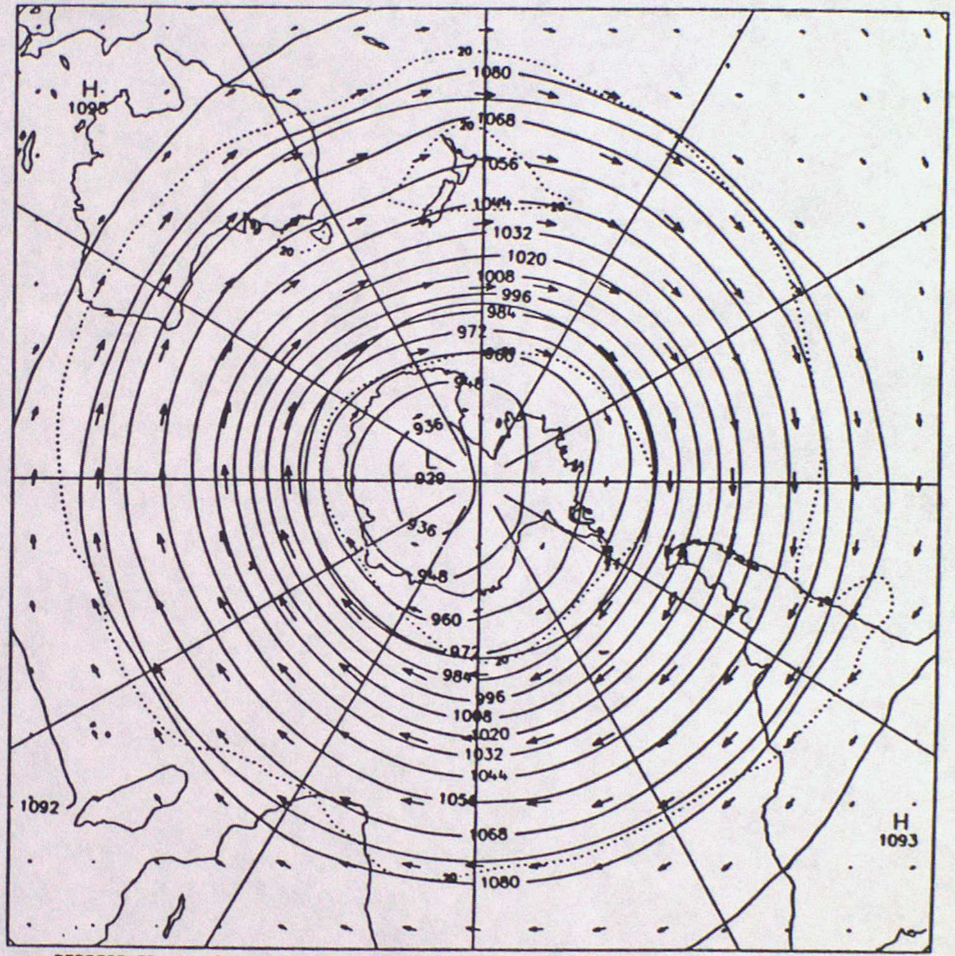
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 250 MB


1080
20
1068
1056
1044
1032
1020
1008
996
984
972
L
H
1096
40
1092

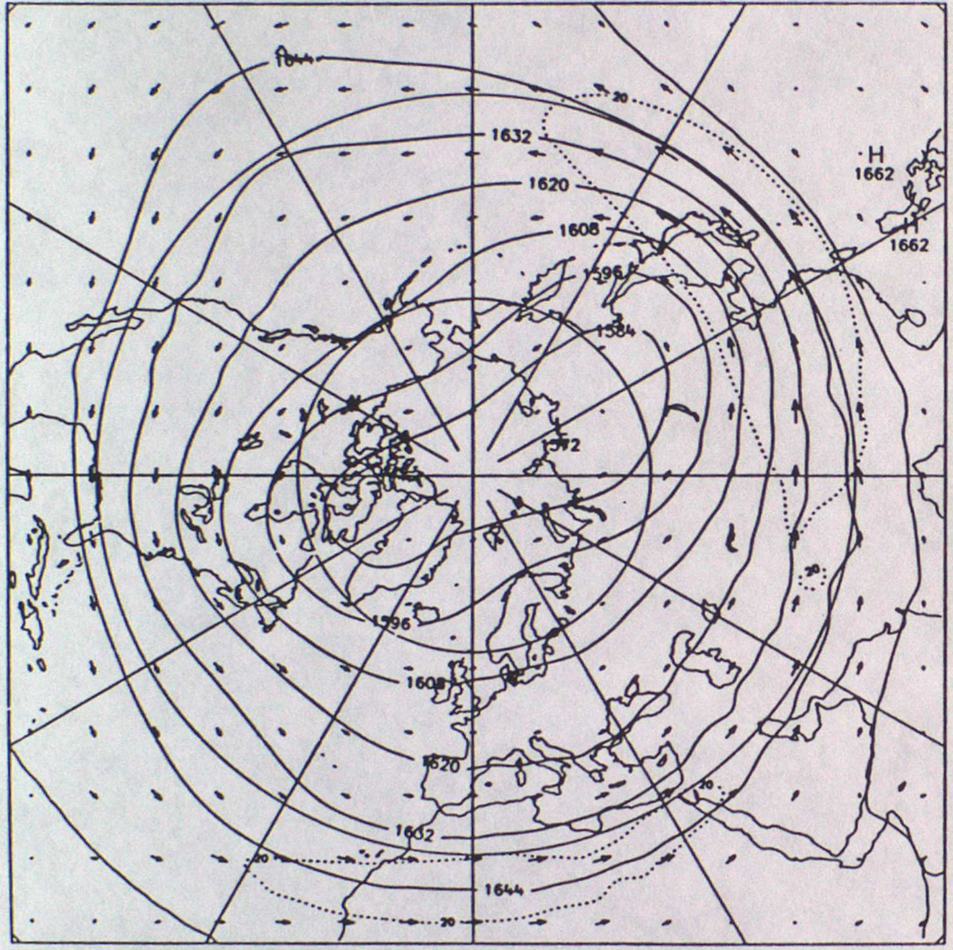
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 250 MB


H
1096
20
1080
1068
1056
1044
1032
1020
1008
996
984
972
960
948
936
L
929
1092
H
1093

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 100 MB


1644
20
1632
H
1662
1620
H
1662
1608
1596
1584
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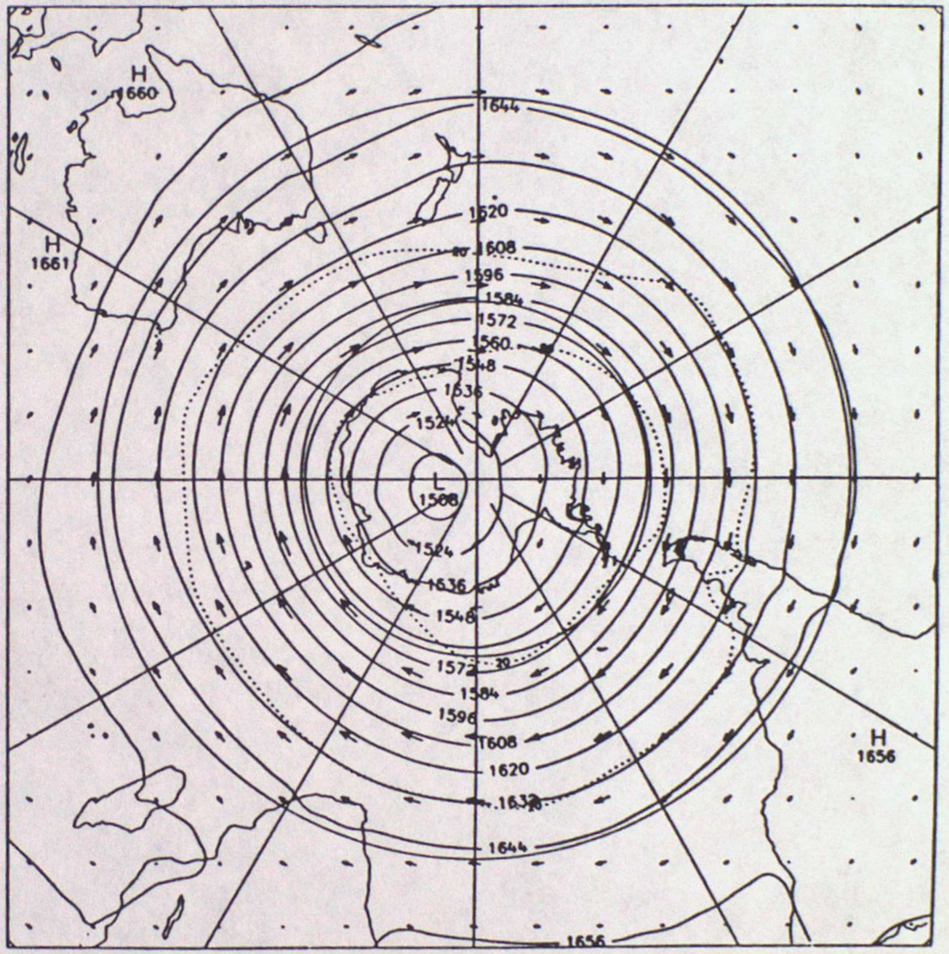
1596
1608
1620
20
1632
20
1644
20

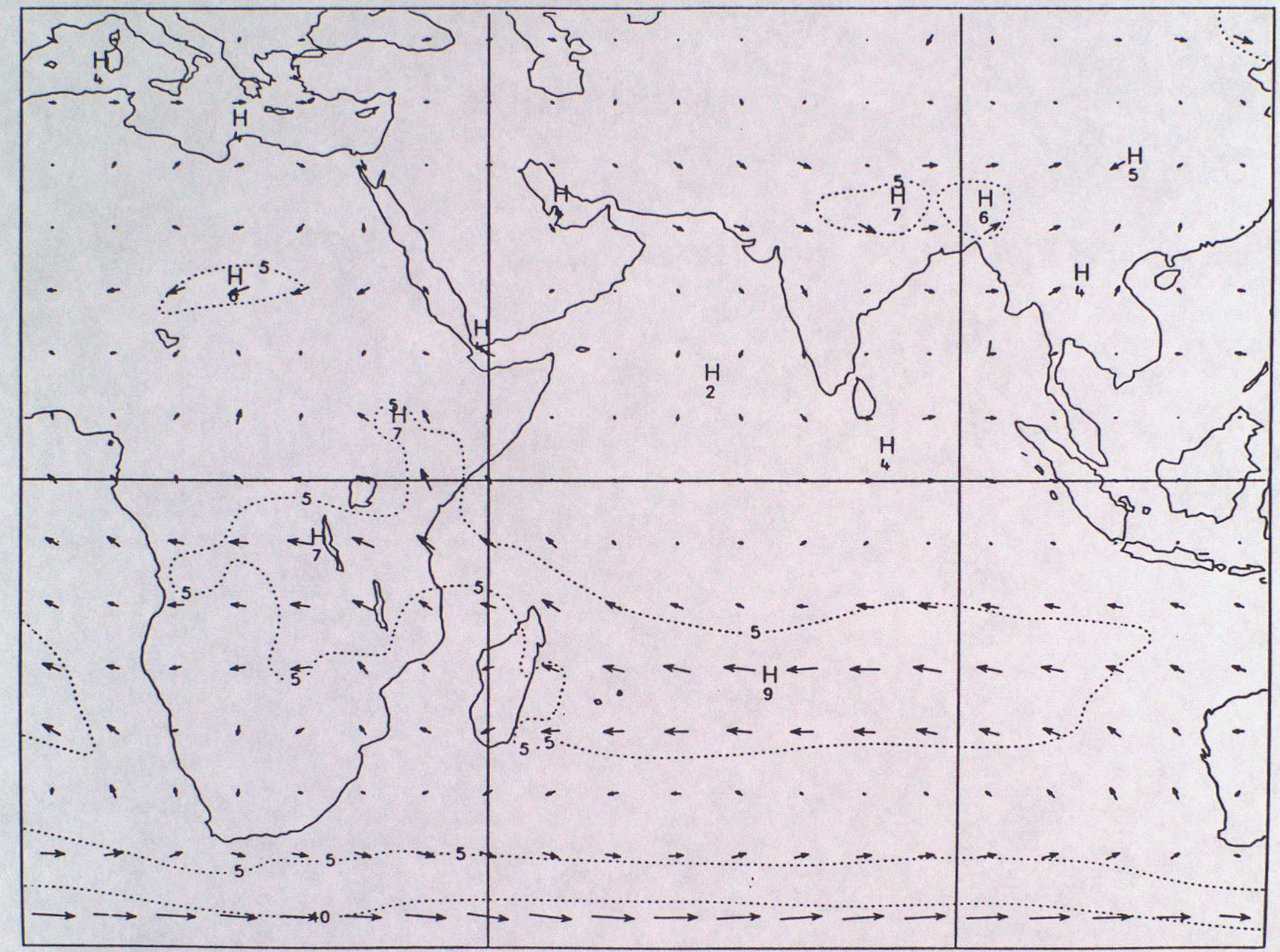
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
LEVEL: 100 MB


H
1660
1644
H
1661
1620
20
1608
1596
1584
1572
1560
1548
1536
1524
L
1508
1524
1536
1548
1572
20
1584
1596
1608
1620
1632
1644
H
1656
1656

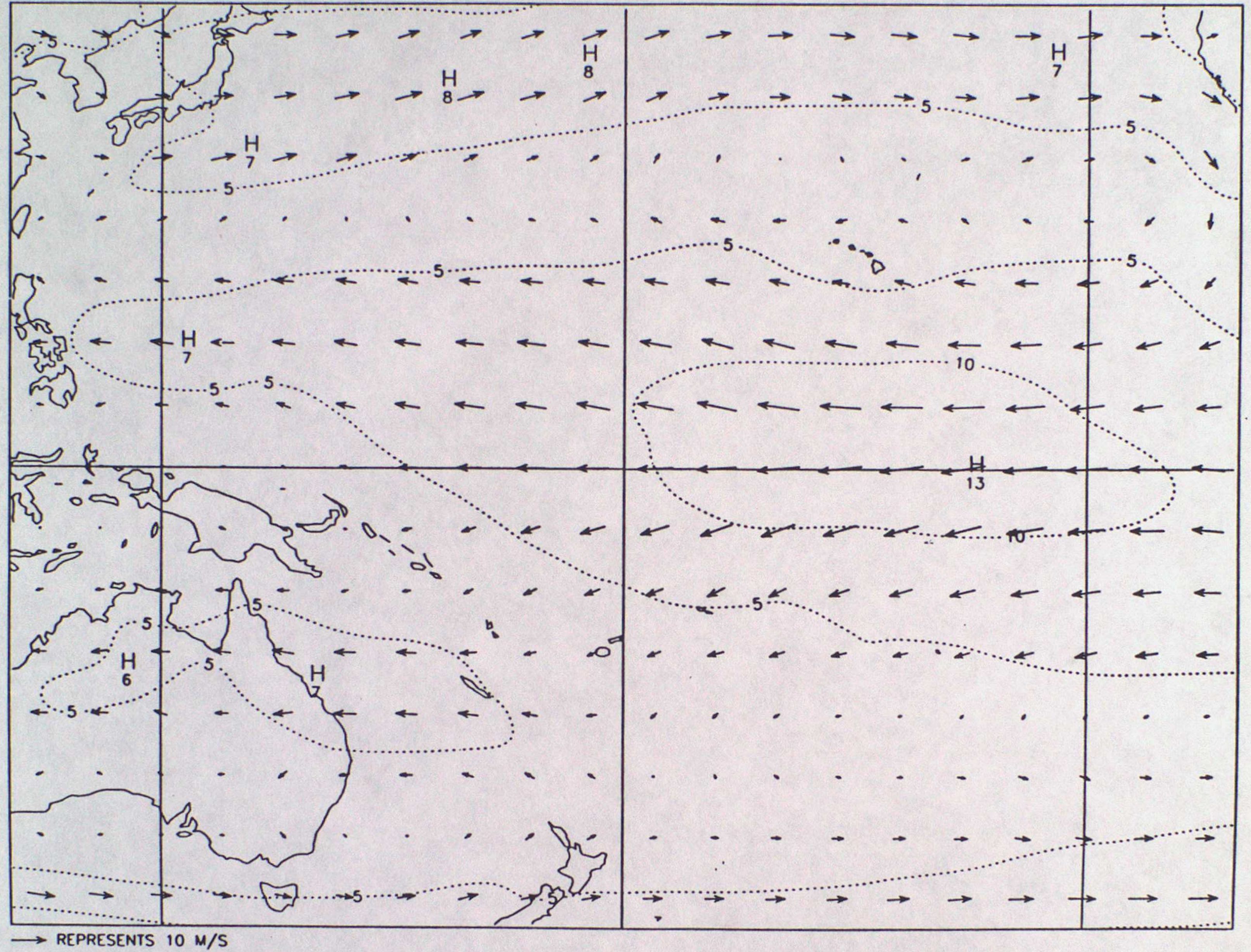
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
850 MBS.   BETWEEN LONGS. 0 E - 120 E

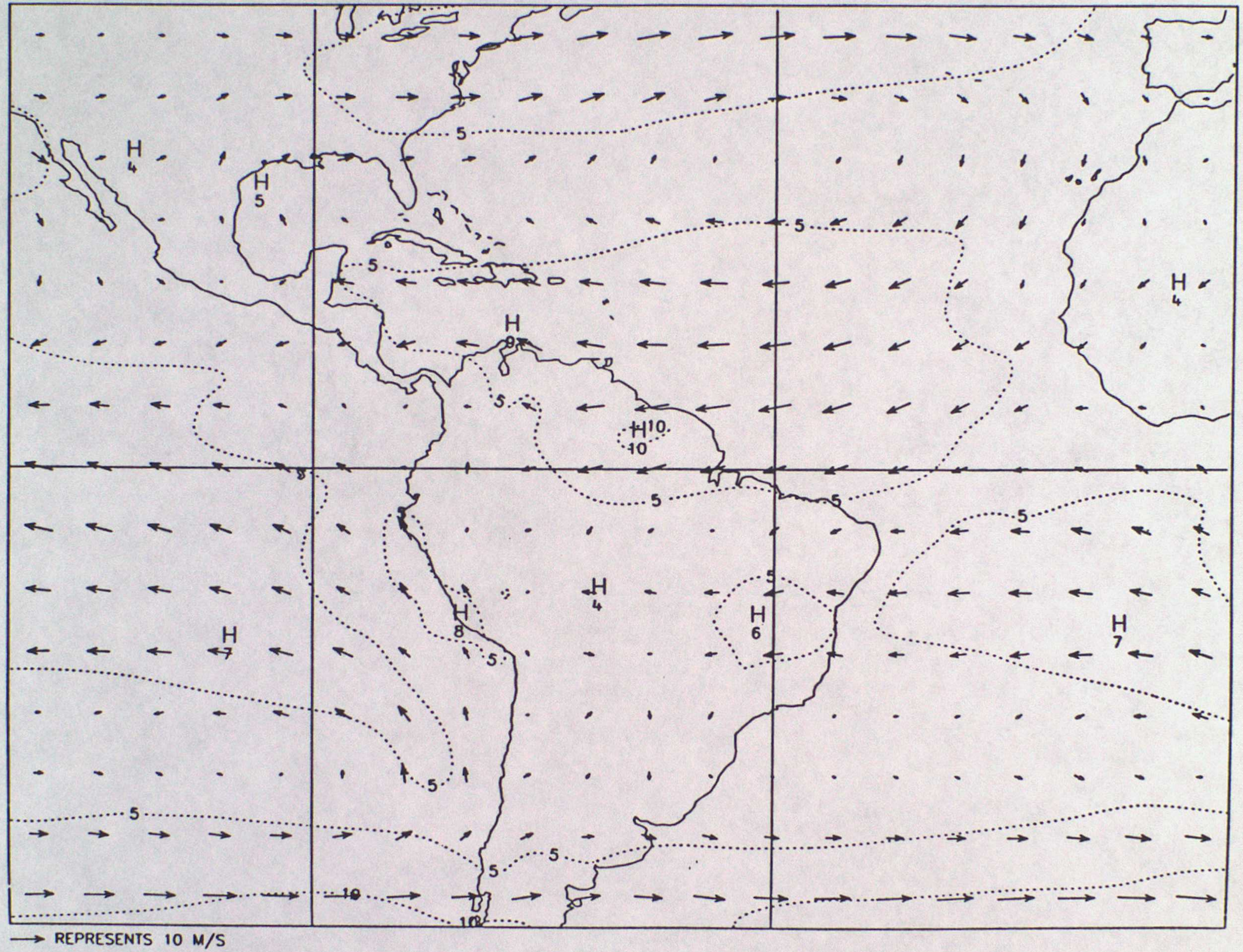

H 4
H
H 5
H 6
H
H 5 7
H 6
H 4
L
H 2
H 5 7
H 4
H 5
H 7
H 9
5
10

→ REPRESENTS 10 M/S

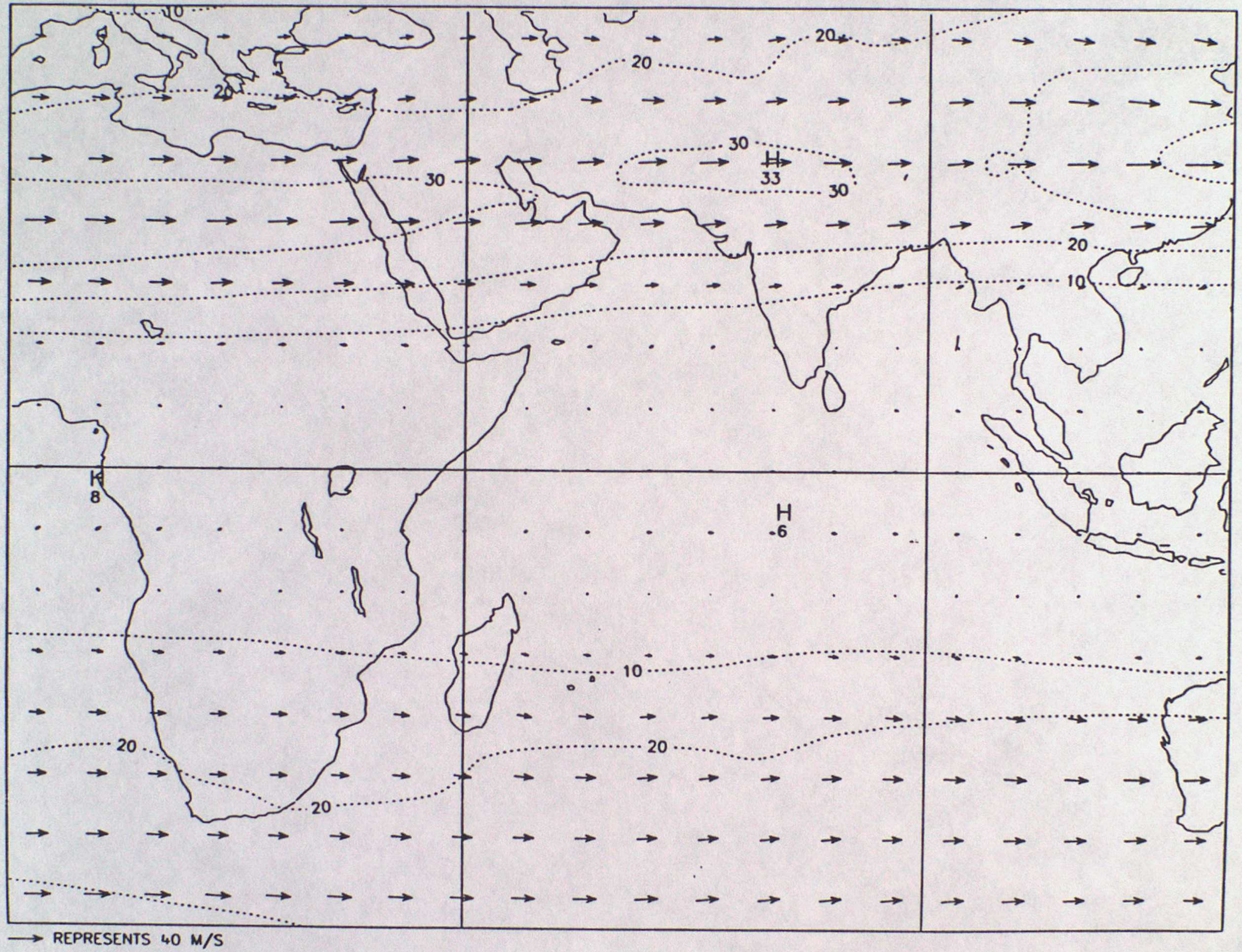
OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
850 MBS.   BETWEEN LONGS. 120 E - 120 W


H 8
H 8
H 7
H 7
H 7
H 13
H 7
H 6
5
10
→ REPRESENTS 10 M/S

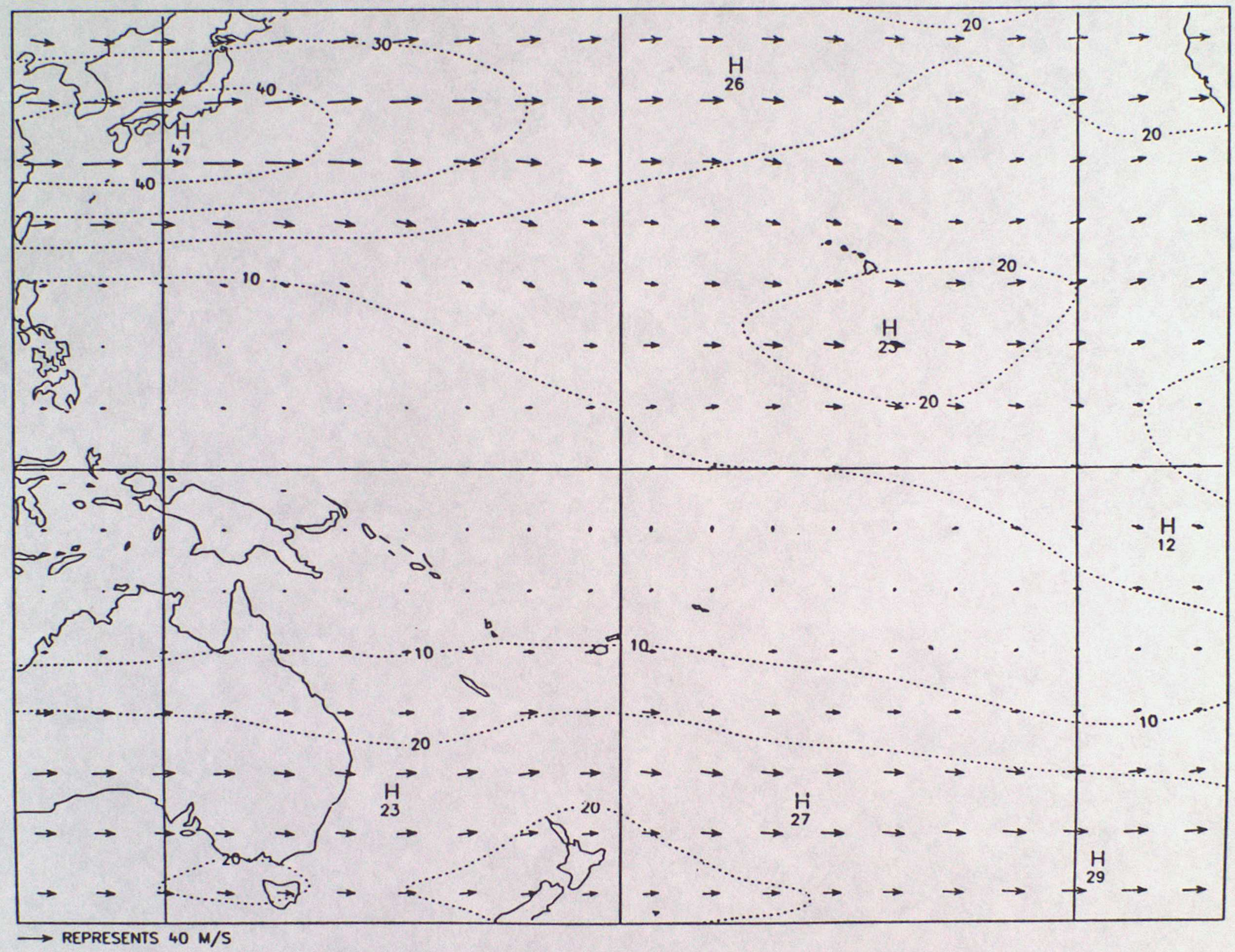
OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
850 MBS.   BETWEEN LONGS. 120 W - 0 W


H 4
H 5
H 4
H 9
H 10
10
H 4
H 6
H 8
H 7
H 7
5
10
→ REPRESENTS 10 M/S

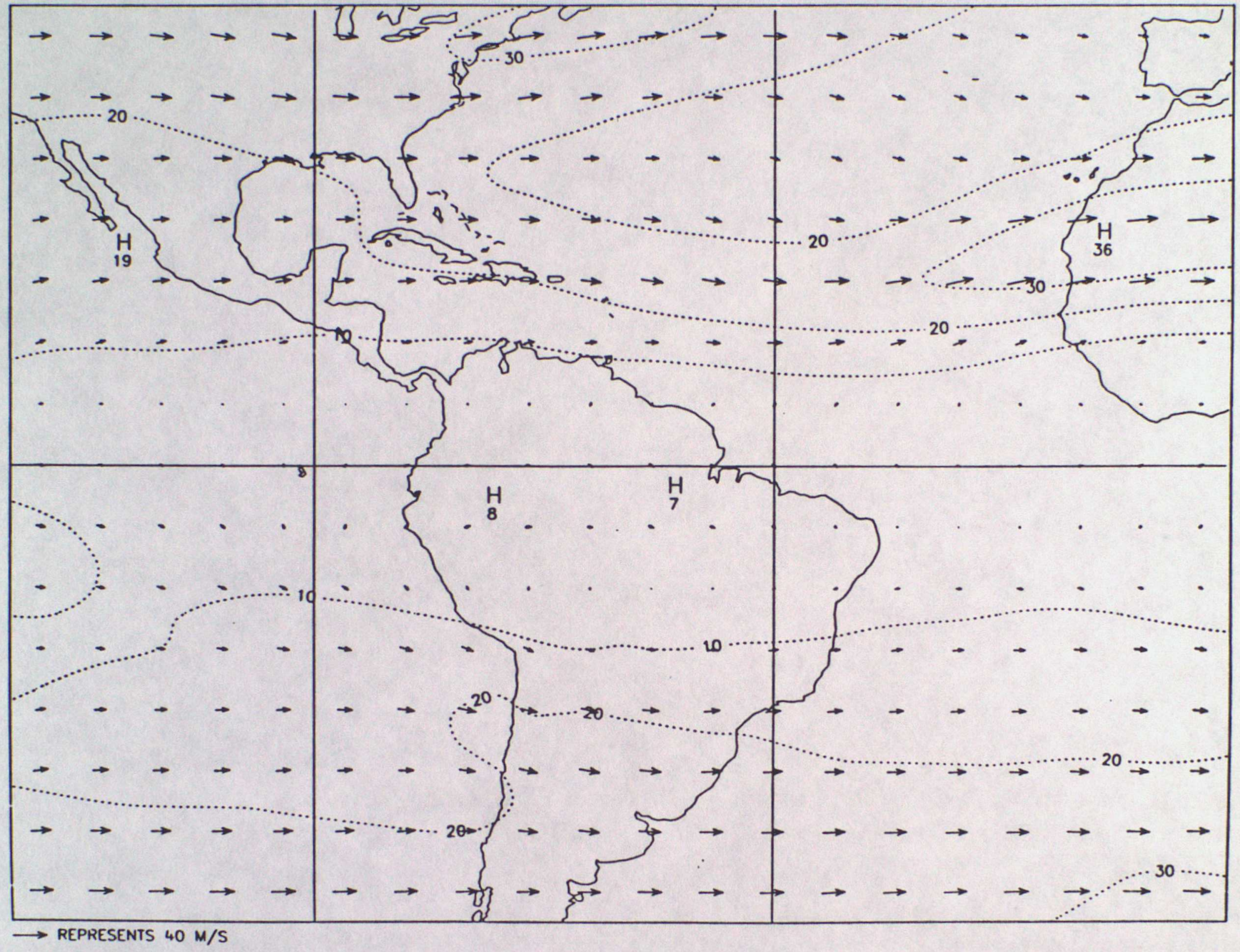
OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
250 MBS.   BETWEEN LONGS. 0 E - 120 E


10
20
20
20
30
30
30
H
33
20
10
H
8
H
6
10
20
20
20
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
250 MBS.   BETWEEN LONGS. 120 E - 120 W


30
40
H
47
40
20
H
26
20
10
20
H
23
20
H
12
10
10
10
20
H
23
20
H
27
20
H
29
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. MAR/APR/MAY1989
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/3/1989 DAY 60 TO 12Z ON 31/5/1989 DAY 151
250 MBS. BETWEEN LONGS. 120 W - 0 W


30
20
H
19
H
36
20
30
10
20
H
8
H
7
10
10
20
20
20
20
30
→ REPRESENTS 40 M/S